



**WORLDWIDE EXPRESS: EXPLOITING  
EXISTING CONTRACT PROVISIONS TO  
MAXIMIZE SAVINGS**

GRADUATE RESEARCH PROJECT

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DEPARTMENT OF THE AIR FORCE  
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Daniel M. Hervas, MA

Major, USAF

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## **Abstract**

Commercial carriers have become a mission essential component of the Defense Transportation System (DTS). In order to improve DTS performance and better support warfighters, the Department of Defense has continually explored methods to enhance services obtained from commercial carriers. Worldwide Express (WWX) is one such initiative. United States Transportation Command (TRANSCOM) implemented WWX in an effort to focus on core competencies, maximize a shrinking organic airlift fleet and capitalize on commercial industry efficiencies. Successful contract implementation and contract evolution has enabled TRANSCOM to meet the demanding post 9-11 surge requirements with limited organic assets.

Nonetheless, even successful programs have room for improvement. The intent of this research is to determine the potential cost savings of exploiting existing consolidation and service failure claims provisions contained within the WWX contract. Using seven months of DLA Distribution Susquehanna, PA (DDSP) WWX shipments to Afghanistan as a case study, this research project examined if DDSP could significantly reduce transportation expenditures by maximizing consolidation and service failure reimbursement claims. The data indicates that TRANSCOM has left significant money on the table and better leveraging these provisions could easily reduce transportation costs with little or no investment.

## **Acknowledgments**

I would like to thank my research advisor, Dr. William Cunningham, for providing guidance, feedback and support throughout the course of this graduate research project. The insight and mentorship was truly appreciated. I am also indebted to the WWX prime commercial carrier's program management team for providing the requested data and taking the time to answer all my questions. Without their assistance, I would not have been able to complete this project. Most of all, I want to thank my wonderful wife for her patience and support throughout this project.

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# **WORLDWIDE EXPRESS: EXPLOITING EXISTING CONTRACT PROVISIONS TO MAXIMIZE SAVINGS**

## **I. Introduction**

The Department of Defense (DoD) continues to battle budget constraints with no monetary relief in sight. DoD officials now anticipate at least an additional \$450 billion budget reduction over the next ten years and fear the worst-case scenario of an astounding trillion dollar reduction as a result of the Budget Control Act of 2011 (Parrish, 2011). Attempting to offset these drastic cuts, the department perpetually searches for cost savings and efficiency gains. One area often highlighted for its potential for both is the DoD's massive \$210 billion supply chain. Improving the DoD supply chain holds tremendous potential for not only enhancing warfighter support, but also significantly reducing costs (GAO, 2011).

The United States Transportation Command (USTRANSCOM), the Distribution Process Owner (DPO), has partnered with key supply chain members on strategic initiatives to achieve significant DoD supply chain performance improvements at reduced costs. Synchronizing supply chain activities with an enterprise-level focus enabled TRANSCOM to generated \$4.92 billion in cost avoidances over a six-year period, Fiscal Year (FY) 2004 through FY 2010 (TRANSCOM, 2011). A commendable achievement; however, the DoD and TRANSCOM must find even greater savings. Reviewing existing transportation practices and contract provisions could potentially indentify substantial overlooked cost-savings.

## **Background**

The enormous demands of executing an increasingly broad array of tasks have placed an overwhelming strain on mobility forces, driving TRANSCOM into a continual surge. In addition, escalating support costs now consume 70 cents of each defense dollar spent (Showers, 1999). Consequently, TRANSCOM has increasingly tapped into the extensive capacity of its commercial partners to reduce costs and meet both steady state and contingency transportation requirements. In fact, the commercial industry is now a mission essential component of the Defense Transportation System (DTS). According to joint doctrine, the DTS consists of three integrated pillars: military resources, commercial resources, and host nation resources (TRANSCOM, 2003).

The number of transportation contracts has exploded as the commercial industry's role has expanded within the DoD's global supply chain. The Worldwide Express (WWX) small package contract is one such transportation contract implemented by TRANSCOM. The contract mandates all DoD shippers use commercial carriers for all high-priority international shipments up to and including 300 lbs per piece (TRANSCOM, 2011). Successful contract implementation routed small package shipments to commercial carriers, freeing up limited organic airlift resources to more effectively sustain global operations.

TRANSCOM periodically reviewed and revised the contract over the last 14 years; however, the command has underutilized two contract options: cargo consolidation and reimbursement for service failures. First, the existing WWX contract contains vague consolidation provisions and is small package-centric. Its focus is the average small volume shipper and the typical individual package. DoD shippers tender shipments over to commercial

carriers individually rather than maximizing consolidation leaving huge savings on the table. As one author noted, “Carriers charge less to ship one 50-pound package than fifty 1-pound packages” (Masciulli, Boone and Lyle, 2002). In addition, the contract guarantees specific service requirements and delineates service failure reimbursement procedures. Nonetheless, the DoD does not have a definitive enterprise-wide procedure to ensure shippers recoup funds or credit for contract service failures. Again, the DoD is potentially leaving millions of dollars on the table. The intent of this study is to determine if TRANSCOM can achieve additional savings by better leveraging existing WWX contract provisions.

### **Problem Statement**

TRANSCOM implemented WWX in an effort to focus on core competencies, maximize a shrinking organic airlift fleet and capitalize on commercial industry efficiencies. Successful contract implementation and contract evolution over the last decade has enabled TRANSCOM to meet the demanding post 9-11 surge requirements with limited organic assets. Nevertheless, the DoD does not effectively leverage existing WWX contract provisions.

### **Research Questions**

The focus of this research is to answer the question: Can the DoD decrease transportation expenditures by exploiting existing consolidation and service failure claims provisions within the WWX contract?

### ***Investigative Questions***

The following is a list of the primary questions used for this research project:

How much potential is there for consolidating WWX shipments?

What is the potential savings from consolidation?

How much potential is there for service claim utilization?

What is the potential savings from maximizing service failure claims?

### **Scope of Research**

The intent of this research is to determine the potential cost savings of exploiting existing consolidation and service failure claims provisions contained within the WWX contract, not to outline WWX policy or procedures. Consequently, the findings do not address specific policy implications or procedural changes required for implementation. The findings simply highlight potentially overlooked opportunities to cut costs. Although potential savings are expected on other WWX lanes, the study focused on one specific case.

## **II. Literature Review**

### **Overview**

The literature review delineates relevant background information to help frame the study. The section begins with a description of the Civil Reserve Air Fleet and the Worldwide Express Contract, followed by a brief overview of cargo consolidation and on-time guarantee contract provisions. The section concludes with a summary of relevant WWX research.

### **The Civil Reserve Air Fleet (CRAF)**

The commercial airline industry is an essential DTS component. Rather than invest billions of dollars creating redundant capability, the DoD elected to leverage the commercial transportation industry's tremendous resources. In 1952, the DoD codified the partnership with the creation of CRAF. The program is a voluntary contractual partnership between the DoD and U.S. commercial air carriers. During contingencies, participating carriers pledge U.S.-Flag commercial passenger and cargo aircraft to augment the organic DoD fleet (Teagan, 2002). The program enabled the DoD to retain substantial reserve airlift capability without incurring the upfront procurement cost or the recurring cost of maintaining assets, saving an estimated at \$1 to \$3 billion in the process (Reese, 2001).

The USTRANSCOM Commander with Secretary of Defense approval may incrementally activate CRAF in three stages. Incremental implementation provides the DoD and commercial participants the flexibility to tailor augmentation assets to meet a variety of contingencies. Stage

I supports minor regional crises, Stage II supports large-scale major combat operations and Stage III supports national mobilization (TRANSCOM, 2003).

CRAF provides critical strategic airlift and anchors TRANSCOM's organic fleet. This supplemental capability is absolutely essential to TRANSCOM's ability to rapidly project, prosecute and sustain global operations. Commercial partners are committed to potentially provide up to half the nation's wartime airlift. AMC estimates that commercial partners would transport nearly 40 percent of cargo and more than 90 percent of passengers during peak operations (TRANSCOM, 2011). Table 1 summarizes CRAF support during FY 2010.

**Table 1. CRAF FY 2010 Support (TRANSCOM, 2011)**

<b>Civil Reserve Air Fleet Support FY 10</b>		
<b>Commercial Companies (CRAF Partners)</b>		<b>34</b>
<b>Number and Type of Aircraft</b>	<b>Passenger</b>	<b>883</b>
	<b>Cargo</b>	<b>281</b>
	<b>Aeromedical</b>	<b>39</b>
<b>Troops Carried</b>		<b>1,402,091</b>
<b>Cargo Shipped (short tons)</b>		<b>211,755</b>
<b>Commercial Missions Flown</b>		<b>9,331</b>

As an incentive for committing aircraft to CRAF, TRANSCOM offers peacetime DoD airlift business to the commercial air carriers. However, the 1990 Gulf War activation uncovered some incentive gaps. The airlines' first priority is to generate profits and participation became a financial liability. For some airlines participation incentives did not outweigh the cost of activation (Lewis, 1998). "AMC has no peacetime business that interests most major airlines" (Coffey and Frola, 1996). As a result, United and American Airlines both withdrew from CRAF in 1994. The move reduced the number of airframes available to support contingency operations by over 30 percent. In response, TRANSCOM launched various initiatives to fortify CRAF's



viability, encourage maximum participation and secure the necessary reserve airlift required to support future contingency operations (Lewis, 1998).

As part of this effort, TRANSCOM expanded peacetime opportunities for CRAF participants. First, TRANSCOM made CRAF participation a prerequisite for transportation contract award. Furthermore, TRANSCOM moved beyond DoD business and focused on U.S. government-wide business opportunities. In a 1995 partnership with the General Services Administration (GSA), the DoD awarded GSA's annual City Pairs contract for air passenger transportation between specific origins and destinations solely to CRAF participants. The \$1.2 billion business opportunity got the attention of the commercial airline industry. "Their principal financial incentive for joining CRAF is the opportunity to compete for GSA air transportation contracts." (Coffey and Frola, 1996). United and American Airlines both rejoined the program after TRANSCOM linked the City Pairs contract with CRAF participation in 1995 (Lewis, 1998).

Next, the DoD and GSA linked the government-wide Domestic Small Package Delivery Services business to CRAF. The commercial carrier that eventually was awarded the business eagerly doubled its CRAF required commitment to secure the lucrative opportunity (Lewis, 1998). The GSA estimated the U.S. Government spent \$372 million in FY 2008 on domestic delivery services (GSA, 2009). Building on the success of the domestic service, TRANSCOM and GSA partnered to launch Worldwide Express (WWX) in 1998 (Reese, 2001). TRANSCOM estimated the total value of the WWX contract at \$181 million in FY 2010 (TRANSCOM, 2009). These efforts effectively lured all of the major U.S. passenger airlines and air cargo firms into the CRAF program.

## **Worldwide Express (WWX)**

In addition to providing incentives for CRAF participation, the WWX contract enabled TRANSCOM to not only leverage buying power, but the contract also enabled the command to gain oversight of an increasing number of shipments moving outside the DTS, capitalize on commercial carriers' capability and provide DoD shippers with quality services at lower rates. The existing organic fleet proved incapable of supporting expanding DoD transportation requirements. Sustaining complex global operations requires a dynamic and agile supply chain and more and more DoD shippers found using commercial carriers better met their time-definite mission requirements. "Commercial shipping is generally viewed as the most expedient and reliable for freight shipping" (Colbert, 2005).

In response, the DoD and GSA launched Worldwide Express in 1998. "Worldwide Express offers expedited international express delivery service through multiple award contracts managed by the Department of Defense (DoD). The acquisition strategy for the international express delivery service or Worldwide Express is a "best value" service to purchase commercial services from express carriers" (GSA, 2012). The contract created synergy, synchronizing the organic and commercial networks to better support transportation requirements under specific DoD policies and procedures outlined in the Defense Transportation Regulation, DODR 4500.9.

Attempting to exploit economies of scale, the DoD mandated WWX usage for all DoD and federal government agencies' shipments meeting contract parameters. TRANSCOM also expanded contract eligibility to DLA's Third Party Logistics (3PL) providers and DoD Prime Vendors. Pooling all these agencies under one contract enabled TRANSCOM to negotiate more

competitive rates. TRANSCOM purports that WWX usage annually reduces transportation costs by \$40 million to \$60 million (Teagan, 2002).

Since the contract's inception, TRANSCOM has worked with its commercial partners and customers to routinely refine the services provided under WWX. The successful contract is now in its fifth iteration. The latest WWX contract provides:

Time definite delivery service from CONUS to OCONUS, OCONUS to CONUS, and OCONUS to OCONUS locations (CONUS includes Alaska, Hawaii, and Puerto Rico). Express service includes door-to-door pick-up and delivery, transportation, Intransit Visibility (ITV), and expedited customs processing and clearance of extremely urgent letters and packages weighing up to and including 300 lbs (TRANSCOM, 2010).

### **Cargo Consolidation**

When possible, shippers should consolidate freight. Consolidation offers shippers with multiple advantages. Most importantly, consolidating shipments reduces transportation costs. Shipping rates often depend on volume; the greater the volume the better the rate. Second, consolidation reduces touch points decreasing the chances of damage since smaller shipments travel through the distribution pipeline as one unit. Additionally, consolidation reduces the potential for theft or pilferage, smaller shipments make easier targets. Consolidation also enhances tracking. Shippers now only have to track one item versus multiple smaller shipments. To capitalize on the advantages of consolidation, the DoD mandates shippers "consolidate shipments to the maximum extent" (TRANSCOM, 2011). The DoD dramatically reduces its transportation costs by maximizing consolidation, saving millions of dollars in the process.

Consolidation is also a common commercial transportation practice. Not surprisingly, TRANSCOM incorporated consolidation provisions into the WWX contract. It states, "All

shipments on the same air bill/manifest shipped from one shipping system (same location and account number), at the same time, destined to the same consignee, shall be aggregated for the lowest cost” (TRANSCOM, 2010). The only other stipulation is that each package must meet the size and weight limits outlined in the contract. Commercial carrier must apply prespecified aggregate rates to these shipments (TRANSCOM, 2011).

### **WWX and Guaranteed Delivery**

The primary advantage of the commercial small package contract is dependable and rapid delivery. The expediated transportation service comes at a premium. As such, the DoD reserves this service for only high-priority shipments. TRANSCOM manages expectation by outlining specific time-definite delivery requirements within the WWX contract. “The contractor shall meet the delivery guarantee, as identified in WWX contract on each shipment or shipper will be entitled to a 100% shipper-initiated credit.” Shippers have a 30-day window from the required delivery date to initiate credit requests. Commercial carriers must either not charge the shipper or credit the shipper for the shipment failure (TRANSCOM, 2009) .

### **Relevant Research**

Since WWX’s inception, researchers have conducted multiple studies that have addressed the premium commercial transportation contract. These research projects have focused overwhelmingly on comparisons between organic and commercial airlift. The basis of these comparisons revolved around shipment costs and delivery speeds of the two transportation methods. Overall, the academic literature indicates that WWX is generally faster, more reliable

and more expensive; however, this was not always the case. Variations did occur across transportation lanes. Neither method proved best for every lane. For example, Operation ENDURING and IRAQI FREEDOM transportation data revealed that transportation performance varied over time and by destination. “At some locations, commercial carriers were faster, whereas, at other locations, AMC was Faster”( Lynch, Drew, Tripp, and Roll, 2005).

In addition, premium commercial service does not come cheap. DoD shippers routinely pay more for WWX shipments than organic airlift (Robbins, Boren, and Leuschner, 2004). WWX rates tend to be higher on new, less robust lanes such as destinations in Iraq or Afghanistan. WWX rates to these locations decrease over time as lanes become more established and volumes increase. As a result, WWX and organic shipment rates tend to converge on more established lanes (Peltz and Robbins, 2007).

Although commercial carriers consistently outperform organic airlift in terms of delivery speeds, several studies determined that organic airlift, at times, did deliver similar performance levels. First, both methods delivered comparable transit times; however, research suggests that the lack of an integrated logistics network negatively impacts the organic military supply chain causing delays in overall shipment time. Delays occurred at the handoff points in the process. One study found that despite comparable transit times, the commercial carrier delivered shipments 3.53 days faster than the organic logistics pipeline (Condon, Cunningham, Moore, and Patterson, 1999). Interestingly, another study found that TRANSCOM achieved comparable overall performance by building an integrated network. AMC effectively synchronized the network and minimized enroute station hold times. However due to increasing demands on

organic airlift assets, 90 percent of the cargo travelled at least one leg on a commercial charter (Robbins, Boren, and Leuschner, 2004).

The existing body of research also cautions against the direct comparisons of the two transportation methods. Although on the surface the two methods appear the same, significant differences have led some researchers to consider such comparisons faulty. First, small package delivery is not a DTS core competency. Commercial carriers specialize in such services and have developed state-of-the-art, integrated networks to specifically support small package operations. On the other hand, AMC must support varied and complex airlift requirements, sustaining forces at austere operating locations with little to no lead times. Second, these commercial carriers exploit their competitive advantages, in particular economies of scale. The DoD may ship millions of packages every year, but these volumes do not even come close to the commercial industry. For instance, the United Parcel Service delivered 4 billion packages in 2011 alone (United Parcel Service, 2012). Furthermore, the DoD is faced with an even bigger disadvantage, variability. Commercial firms tend to encounter relatively minor shifts in volumes from year to year. Conversely, the DoD must prepare for a wide array of contingencies and routinely surges to meet the unpredicted demands and volumes. Another unique challenge for the DTS is that it must meet all customer requirements regardless of profitability. “Thus, the Defense distribution system...must deliver to places that profit-maximizing commercial firms might never visit, and it must procure and hold low-demand items that would never be cost justified in the commercial sector” (Robbins, Boren, and Leuschner, 2004).

Despite the added costs, researchers have concluded that using WWX makes sense (Masciulli, Boone and Lyle, 2002). The DoD must maintain a globally responsive and cost-

effective supply chain with finite airlift assets. In order to achieve such a supply chain, the DoD moved to integrate organic and commercial capabilities. The commercial transportation carriers have exploited technological advancements enabling carriers to provide increasingly faster, time-definite deliveries at lower costs. The DoD outsourced domestic and international small package service attempting to harness commercial industry efficiencies, improve performance, reduce overall operating costs and focus on core competencies.

By most accounts, WWX has been a slam dunk. Nevertheless, the DoD should continually strive to improve even the most successful programs. President Obama challenged federal employees to find opportunities to reduce government waste. Under Secretary of the Air Force, Erin Conaton, pointed out, “In these challenging fiscal times, every dollar counts and every good idea matters” (Conaton, 2011). With this in mind, the goal of this study is determine if a few minor modifications to existing WWX practices can eliminate waste and better leverage the small package contract.

### **III. Methodology**

#### **Overview**

This chapter delineates the methodology employed to complete this graduate research project. The overall objective of this study is to determine if the DoD can exploit existing WWX transportation contract provisions to achieve significant cost savings. Specifically, the research used a high-volume WWX shipper and transportation lane as the basis for a case study to target two areas in particular: shipment consolidation and service failure credit request utilization. The graduate research project examined the rate of consolidation and credit request utilization followed by data analysis to determine the potential cost savings of more effectively leveraging these two target areas.

#### **Case Selection**

In order to find a suitable high-volume WWX shipper and transportation lane for the case study, the author employed the Willie Sutton rule, looking for large sums of money first. Following the recommendation of a leading scholar, the author looked “for areas with large expenses in indirect and support resources” (Kaplan and Cooper, 1998). A review of the academic literature revealed an outstanding candidate for the case study’s destination, Afghanistan. The DoD spent over \$2 billion on air transport supporting operations in Afghanistan in FY 2009 (GAO, 2010). With a suitable destination selected, the author worked backwards until reaching the Defense Logistics Agency (DLA).



DLA is the backbone of the DoD's massive supply chain. The mammoth combat support agency provides full spectrum logistics, acquisition and technical services to the military services, several federal and civilian agencies and foreign countries. DLA centrally manages various types of equipment and over 80 percent of the military's spare parts, sustaining more than 2,200 weapon systems. Additionally, the agency sources and issues nearly all the DoD's consumable items including food, fuel and energy, uniforms, medical supplies, and construction equipment. DLA manages eight distinct DoD supply chains and over five million line items through an integrated network of 26 Defense Distribution Centers (DLA, 2012). Figure 1 identifies DLA's worldwide distribution center locations.

### **DLA Distribution Centers**



**Figure 1. DLA Distribution Center Locations (DLA, 2010)**

Hence, DLA not only provides extensive logistical support to ongoing contingency operations in Afghanistan, but the expansive agency also is the DoD's top transportation user (Moore, Chenoweth, Reardon, Grammich, and Bullock, 2007).

However, for the purposes of this study stopping at DLA did not offer tremendous fidelity; thus, the author continued on to one of its numerous subordinate agencies, DLA

Distribution Susquehanna, PA (DDSP). DDSP is DLA's largest distribution facility and its largest transportation user (Moore, Chenoweth, Reardon, Grammich, and Bullock, 2007). The distribution center's modern facilities and strategic location enable the rapid sustainment of warfighters throughout the world, but especially ongoing contingency operations within the United States Central Command's Area of Responsibility (DLA, 2012). The high-volume shipper is also one of the largest WWX users. A large volume of the expansive 1.3 million square foot facility's cargo destined for warfighters in Afghanistan flows via WWX. In fact, DDSP tendered over 30,000 such shipments to its prime WWX commercial carrier in FY 2010, making these lanes an outstanding case to analyze.

## **Data**

With a case selected, the author required a data set. Because of the proprietary nature of contract rates and performance levels, the author elected to rely on historical data. The author contacted the prime WWX carrier for this lane and obtained a consolidated shipment report for FY 2010. The rates and shipments covered in this report are covered under the provisions outlined in WWX-4, the previous iteration of the active contract; nonetheless, the data proved sufficient to complete this graduate research project. Although the data set covered the complete year, DDSP used a different commercial carrier to transport WWX shipments to Afghanistan prior to March 2010. Therefore, the author included only the applicable seven months, March 2010 to September 2010, in the final shipment data set.

## **Data Analysis**

Data in hand, the author proceeded to analyze the prime WWX commercial carrier's reports. First, the author reviewed the data to determine the consolidation utilization rate. Next, the author calculated the potential cost avoidances of consolidating applicable WWX shipments. The author analyzed seven months of DDSP WWX shipments consigned to Afghanistan, sorting the sample to include only shipments fitting an operationally feasible consolidation profile: packages with a chargeable weight of less than 50 pounds. Consolidation of all shipments does not always make sense. Consolidating heavier freight is impractical from a handling perspective, not to mention the DoD actually gets better rates for individually tendered dense freight. For example based on the prime commercial carrier's WWX rate schedule, an individually tendered 120 pound shipment is rated at \$2.58 per pound, but \$3.39 per pound if aggregated. The less dense the freight, the greater the incentive to aggregate; a 1 pound shipment is rated at \$20.72 compared to \$3.39 per pound if aggregated. The author further refined the sample by subdividing shipments by day and ultimate consignee to align the sample data with existing contract language and DoD transportation policy.

Additionally, the author compiled another sample similar to the first, but based this second consolidation profile on the weight break for WWX shipments. Instead of applying the first consolidation profile: packages with a chargeable weight of less than 50 pounds, the second profile only included shipments with a chargeable weight of less than 29 pounds. The author calculated the potential cost avoidance of these two samples by subtracting the nonconsolidated shipment costs for each profile from the total shipment costs, then adding the consolidated shipment costs for each profile back into the total shipment costs.

The second aspect of the study focused on service failure credit request utilization and its cost avoidance potential. The prime commercial carrier's reports obtained did not include sufficient data to directly calculate utilization rates. Therefore, the author queried the prime commercial carrier's WWX program management team and gained the credit request data directly from this office. Additionally, calculating the potential cost savings from maximizing service failure claims also required a workaround because the prime commercial carrier On-time Performance Report did not break out performance by specific transportation lane. Instead, the report provided a macro view of the prime commercial carrier's overall WWX on-time performance. The report only contained overall on-time performance by shipper, not by shipper to each destination. As a result, the author used DDSP's overall on-time performance to estimate on-time performance for all WWX shipments destined for Afghanistan. For example, the author multiplied total monthly shipments by the delayed shipment percentage to approximate refund/credit potential. Although not exact, the calculation highlights the amount of money the DoD may have left unclaimed.

## **IV. Results and Analysis**

### **Overview**

The results and analysis section details the study's findings by answering the research questions. The section first explores the overall WWX consolidation potential on these lanes, before reporting the estimated amount of potential savings that the two established consolidation profiles could potentially generate. As part of this discussion, the author highlights a destination with significantly more cost savings potential. The section then delineates service failure claim utilization potential before estimating the potential cost savings such claims could generate. The section concludes with an examination of the effects of simultaneously leveraging consolidation and service failure claims.

### **WWX Consolidation Potential**

The data indicates consolidation of WWX shipments is fertile ground with substantial savings potential. DDSP did not consolidate any of the 30,326 WWX shipments destined to Afghanistan during the 7-month sample period despite sufficient daily volumes on these lanes. Rather, the distribution center individually tendered 100 percent of these shipments to the commercial carrier. Furthermore, 26,798 or 88 percent of the total sample met the first consolidation profile, less than 50 pounds of chargeable weight. Daily volumes proved sufficient for consolidation on all but 14 days under this profile. Additionally, 24,923 or 82 percent of the total sample met the second consolidation profile, less than 29 pounds of chargeable weight.

Again, the overwhelming number of shipments, 99.91 percent, met the established consolidation criteria. Low volumes precluded potential consolidation on only 22 days under the second consolidation profile.

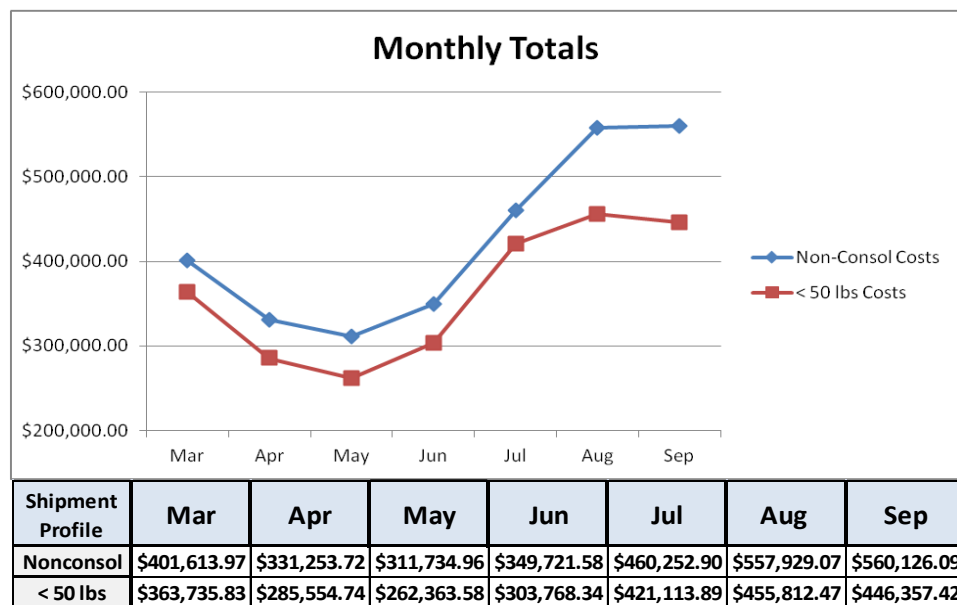
Moreover, the prime WWX commercial carrier already effectively utilizes consolidation on these lanes; signifying consolidation is not only operationally feasible, but also effective, efficient and profitable. The firm is a freight forwarder, not a small package operator like other WWX carriers. Freight forwarders generate profits by marking up procured transportation from second-party carriers, managing shipments and by providing value-added ancillary services. WWX pricing is fixed; therefore, the commercial carrier must control costs to remain profitable while maintaining stringent contract service levels. Because bulk dictates rates, the firm consolidates daily volumes of individually tendered DDSP WWX shipments whenever practical to secure the lowest possible rates. These DDSP WWX shipments then move on second-party airlines until they reach a Middle Eastern hub. Where, the freight is once again consolidated with other shipments before flowing into Afghanistan for final delivery. The process is transparent to DDSP. Nevertheless, in accordance with contract provisions, individual shipment rates apply instead of the lower aggregated rate because DDSP individually tendered the shipments.

### **Potential Savings from Consolidation**

Sustaining warfighters in Afghanistan is not only a difficult logistical challenge, but an expensive proposition. DDSP spent \$2,972,632.29 on WWX shipments destined for Afghanistan during this 7-month period. Detailed analysis of the shipment records using the first

consolidation profile indicates significant savings potential. DDSP paid \$1,155,605.16 in transportation costs for the 26,798 shipments that met the first consolidation profile.

Consolidation of these shipments would have reduced this amount by 38 percent and saved the government \$433,926.02. Such efforts would have enabled DDSP to trim 15 percent from the distribution center's overall transportation expenditures on these lanes, driving overall shipment costs down to \$2,538,706.27. Figure 2 provides a monthly breakout out of the results.

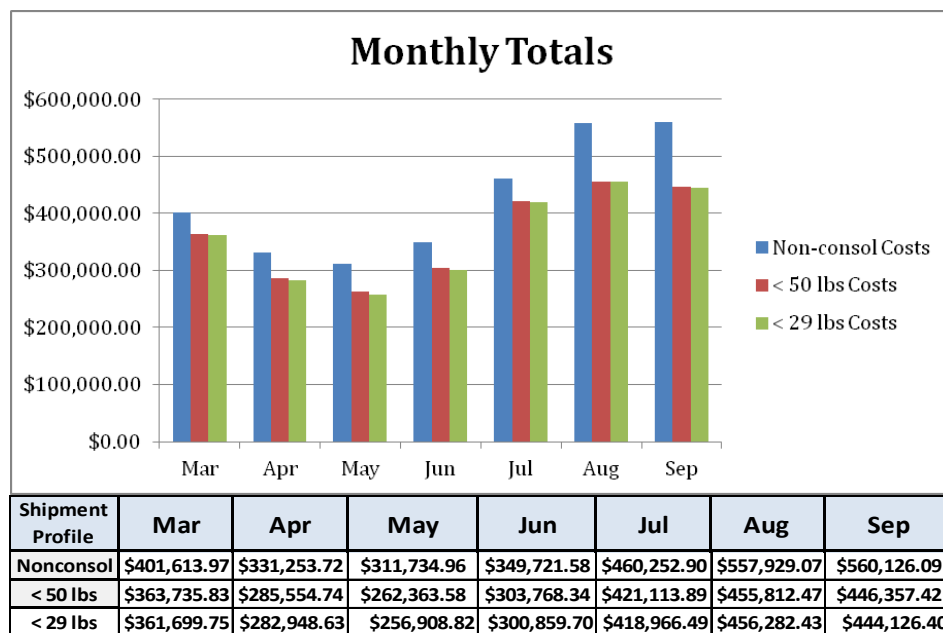


**Figure 2. Non-Consolidation Versus First Consolidation Profile**

The initial data analysis uncovered the potential for even greater savings. The author based the first consolidation profile on operational feasibility; however, due to the regressive rate scale the 50 pound break point proved faulty. Applying this profile, the consolidation rate exceeded the average daily shipment rate on 48 occasions. On these days, DDSP would actually pay more by consolidating these heavier shipments than by simply using the standard WWX

rates. After re-examining the commercial carriers WWX rate schedule, the author found a weight break at 28 pounds. Consequently, the author then created a second consolidation profile based on the 28 pound weight break.

Although 1,875 fewer shipments met the second consolidation profile's more stringent chargeable weight criteria, the data analysis indicates applying the second consolidation profile instead of the first could generate an additional \$16, 914.05 in potential savings. Consolidation under the second profile could have reduced DDSP's \$935,080.67 transportation bill for these 24,923 WWX shipments by 48 percent, potentially saving the government \$450,840.07 and further trimming the distribution center's \$2,972,632.29 overall transportation expenditure for these lanes down to \$2,521,792.22. Figure 3 provides a monthly breakout of the results.



**Figure 3. Non-Consolidation Versus Both Consolidation Profiles**



Of the various WWX destinations within the case study, shipments consigned to Shindand, Afghanistan presented noteworthy results. The data analysis revealed that this transportation lane, DDSP to Shindand, yielded significantly more cost savings potential than any other lane within the case study. Interestingly, Shindand shipments only accounted for slightly more than 10 percent of the total shipments, yet the lane generated 22 percent of the total potential cost savings. DDSP could have potentially saved 65 percent or \$97,765.31 by aggregating the 2,742 shipments meeting the first consolidation profile or potentially saved 71 percent or \$96,797.31 by aggregating the 2,652 WWX shipments meeting the second profile. Table 2 breakouts Shindand shipment details.

**Table 2. Shindand Shipment Details**

Shindand < 50 lbs			Shindand < 29 lbs		
Nbr Shipments	Non-consol	Consol	Nbr Shipments	Non-consol	Consol
2742	\$149,581.58	\$51,816.27	2652	\$137,080.80	\$40,283.49

Unlike the other destinations, Shindand is not a port of entry; therefore, the commercial carrier added an additional assessorial charge to deliver these shipments beyond the port of entry. Subsequently, DDSP paid an additional \$22 for each individually tendered WWX shipment. The additional beyond charges amounted to \$60,324 for the 2,742 shipments meeting the first profile and \$54,344 for the 2,652 shipments meeting the second profile. DDSP shipped sufficient volumes to utilize consolidation on all 45 days with traffic; therefore, the distribution center could have substantially reduced beyond charges by an incredible 98 percent. Instead of paying \$22 for each shipment, DDSP could have simply paid \$22 per consolidated shipment, a total of \$990.

## **Service Failure Claims Potential**

On-time delivery is guaranteed under WWX contract provisions; a premium service that comes at a premium. Some delays occur at no fault of the commercial carriers; consequently, shippers can only claim reimbursement on non-excusable service failures. One would assume claims rates should approximately mirror carrier's on-time performance rates since on-time performance rates exclude excusable service failures. For example, commercial carriers subtract non-excusable service failures then divide on-time shipments, which includes excusable service failures, by total shipments to calculate on-time performance. However, this case study's claim rate did not mirror the prime carrier's on-time performance. Inexplicably, DDSP did not file a single reimbursement claim with the prime carrier for any of the 30,236 WWX shipments during the sample period. Since the commercial carrier did not have perfect on-time performance on these lanes, it appears claiming reimbursement for service failures holds significant savings potential.

## **Potential Savings from Service Failure Claims**

The author calculated potential savings using the commercial carrier's on-time performance report for the sample period to estimate the potential savings from claiming reimbursement for service failures. The data suggests that DDSP left a considerable amount of money on the table. DDSP could have reduced overall WWX expenditures on these lanes by seven percent by simply filing for reimbursement, \$2,972,632.29 down to \$2,760,325.22. DDSP's inaction left \$212,307.07 unclaimed.

The author further manipulated the data set to determine the potential savings using the two established consolidation profiles. The overall transportation savings remained at seven percent regardless of consolidation profile applied; however, the total potential savings decreased as transportation expenditures decreased from the first to the second consolidation profile: \$2,538,706.27 and \$2,521,792.22 respectively. DDSP could have potentially saved \$175,385 by consolidating all applicable shipments less than 50 pounds or \$174,849.73 by consolidating all applicable shipments less than 29 pounds. Table 3 provides a monthly break out of the potential savings by consolidation profile.

**Table 3. Potential Savings From Maximizing Service Failures**

Potential Savings From Service Failure Credit No Consolidation				Potential Savings From Service Failure Credit < 50 lbs Consolidated				Potential Savings From Service Failure Credit < 29 lbs Consolidated			
Month	Total Costs	On-time %	Potential Savings	Month	Total Costs	On-time %	Potential Savings	Month	Total Costs	On-time %	Potential Savings
Mar	\$401,613.97	99.90%	\$401.61	Mar	\$363,735.83	99.90%	\$363.74	Mar	\$361,699.75	99.90%	\$361.70
Apr	\$331,253.72	100.00%	\$0.00	Apr	\$285,554.74	100.00%	\$0.00	Apr	\$282,948.63	100.00%	\$0.00
May	\$311,734.96	99.80%	\$623.47	May	\$262,363.58	99.80%	\$524.73	May	\$256,908.82	99.80%	\$513.82
Jun	\$349,721.58	95.70%	\$15,038.03	Jun	\$303,768.34	95.70%	\$13,062.04	Jun	\$300,859.70	95.70%	\$12,936.97
Jul	\$460,252.90	93.80%	\$28,535.68	Jul	\$421,113.89	93.80%	\$26,109.06	Jul	\$418,966.49	93.80%	\$25,975.92
Aug	\$557,929.07	85.00%	\$83,689.36	Aug	\$455,812.47	85.00%	\$68,371.87	Aug	\$456,282.43	85.00%	\$68,442.36
Sep	\$560,126.09	85.00%	\$84,018.91	Sep	\$446,357.42	85.00%	\$66,953.61	Sep	\$444,126.40	85.00%	\$66,618.96
Total	\$2,972,632.29	94.17%	\$212,307.07	Total	\$2,538,706.27	94.17%	\$175,385.05	Total	\$2,521,792.22	94.17%	\$174,849.73

## Simultaneous Employment

The data suggests consolidation and service failure claims independently hold tremendous savings potential. Nevertheless, DDSP could maximize these potential savings by simultaneously leveraging consolidation and service failure claims. If applied together, DDSP could have potentially saved \$625,689.80 during the 7-month sample and potentially reduced overall WWX expenditures from \$2,972,632.29 down to \$2,346,942.49, an impressive 21 percent.

## **V. Conclusions and Recommendations**

### **Research Overview**

Commercial carriers have become a mission essential component of the DoD's global supply chain. "In many cases the DoD has adjusted its policies and processes to work within the commercial framework" (Topic and Kenwell, 2011). In order to improve DTS performance and to better support warfighters, the DoD has continually explored methods to enhance services obtained from commercial carriers. One area often studied has been the WWX contract. WWX enables the DoD to sustain on-going operations by leveraging commercial partner's resources and capabilities while keeping costs down. By some estimates, WWX saves approximately \$40 and \$60 million annually; therefore, the contract is not going away any time soon (Teagan, 2002). In fact, TRANSCOM implemented the latest contract iteration, WWX-5, on 1 October 2011.

Nonetheless, even successful programs have room for improvement. Therefore, unlike other WWX studies that have compared commercial carriers and organic airlift performance and costs, this study focused on maximizing savings by exploiting existing contract provisions. Using DDSP shipments to Afghanistan during a 7-month period as a case study, this research project examined if DDSP could significantly reduce transportation expenditures by maximizing consolidation and service failure reimbursement claims.

The data suggests consolidation and service failure claims independently present tremendous savings potential, \$450,840.07 and \$212,307.07 respectively. Nevertheless, DDSP could maximize these potential savings by simultaneously leveraging consolidation and service

failure claims. If applied together, DDSP could have potentially saved \$625,689.80 during the 7-month sample and potentially reduced overall WWX expenditures from \$2,972,632.29 down to \$2,346,942.49, an impressive 21 percent.

### **Strengths and Limitations**

The main strength of this research is the novel and straightforward approach employed. The study tackles the WWX contract from a fresh perspective. WWX is a tried and proven program. It is often difficult to further enhance a successful program; therefore, managers and researchers often focus on broken programs. Instead of thinking outside the box, the study focuses inside the box, delineating how DDSP can generate sizeable cost savings by simply exploiting existing consolidation and service failure claims provisions contained within WWX contract. The cost savings is 'free money', little or no investment is required for DDSP to tap into these potential savings. Sometimes simple yet effective ideas can have profound operational impacts.

The data rich case selected for this study further strengthened the research project. The high volumes on the various DDSP to Afghanistan WWX transportation lanes provide an outstanding case to determine current consolidation levels and the cost savings that maximizing consolidation could potentially generate. Nevertheless, without sufficient shipment data the study would not have been possible. Because of the proprietary nature, contract related shipment data is often difficult to come by. In spite of the potential for lost revenues and increased service failure claims, the prime commercial carrier graciously provided historical shipment reports containing the data necessary to conduct an effective side-by-side comparison of the various

consolidation profiles, which enabled the author to clearly delineate the potential financial benefits of consolidation. An industry leader described the commercial sector's role in cost reduction efforts in the following way:

Industry also must seek to help government improve its processes and explain how the government can make changes that will reduce costs. Even though it is counterintuitive to tell a customer how to pay less for a service, companies must take a long term view. The bottom line is that there is a balance that must be found that helps reduce price while improving overall service and gaining customer loyalty. In the end, the military will have more confidence in the commercial carriers and companies will have a better knowledge of the requirement (Topic and Kenwell, 2011).

A limitation of the research, as with many projects, is an imperfect data. The lack of data made calculating the savings potential from service failure claims challenging. The commercial carrier's shipment report did contain sufficient information to determine transit times; however, the report lacked the required information to properly classify a service failure: excusable or non-excusable. Service failure classification is essential to calculating which shipments DDSP should have claimed reimbursement on. Furthermore, the carrier's on-time performance report covering the 7-month sample period did not break out performance by specific lanes. The report only provided performance by shipper as a whole, not by each individual shipment lane combination. Although not exact, the on-time performance report supplied sufficient information to calculate an approximation. In this case, the precise amount is not critical. The most important take away is that despite the apparent existence of a considerable number of non-excusable service failures by the prime commercial carrier during this period, DDSP did not file a single reimbursement claim. Consequently, the distribution center left thousands of dollars on the table.

Although the data analysis indicates that DDSP could generate significant cost savings by exploiting the existing consolidation and service failure provisions of the WWX contract, the lack of generalizability may limit research findings applicability to other shippers. Volume and lane pair variation make each shipper unique; therefore, potential savings will also vary by shipper. Regardless of the amount, any savings is ‘free money’. The study simply highlighted two underutilized provisions of the WWX contract that present tremendous untapped cost savings potential, savings that could be well into the millions of dollars.

### **Recommendation for Future Research**

The challenging fiscal environment requires the DoD to make the most of every dollar; therefore, maximizing cost savings by leveraging existing contracts presents vast research opportunities with direct operational impact. The base year of the WWX-5 contract and its four one-year options have a maximum ceiling of over \$860 million; thus, future researchers should explore the generalizability of this research to determine how much more potential savings exist across all WWX lanes (TRANSCOM, 2010). Future research should not only examine the savings potential of consolidation and service failure claims of other high-volume shippers, but also medium and small shippers or perhaps investigate the saving potential on lanes with different prime commercial carriers. Additionally, this study focused on transportation lanes supporting on-going contingency operations in Afghanistan. Thus, future research should examine more traditional steady state transportation lanes to determine their cost savings potential.

Furthermore, WWX is just one of many DoD transportation contracts. The DoD has become increasingly reliant on the commercial industry to sustain global operations. Subsequently, the number of transportation contracts has increased with the expanding role of the commercial industry within the DoD global supply chain. Therefore, future researchers should branch out beyond WWX. Other contracts such as Theater Express, GSA Domestic Small Package, Heavyweight, and Ground Delivery, the Defense Transportation Coordination Initiative, etc. are worth analyzing to determine if the DoD can exploit existing provisions within these contracts.

## **Conclusion**

The DoD must make the most of ever shrinking budgets and can no longer afford to leave money on the table. Every dollar counts in the current fiscal constrained environment. As Winston Churchill eloquently stated, “Gentlemen, we have run out of money. Now we have to think” (Clark, 2009). The department is always seeking creative out of the box ways to reduce cost, yet the DoD should not forget to think inside the box; thinking inside the box would ensure the DoD gets the most of current programs by exploiting existing policies and contract provisions. Although not a panacea, the data indicates that maximizing WWX consolidation and service failure claims could easily reduce transportation costs with little or no investment.



## Appendix A: First and Second Consolidation Profile Data Tables

DDSP to AF								
Month	Total Shipments	< 50 lbs	% < 50 lbs	Total Costs	< 50 lbs	< 50 lbs Consol	Total if Consol	Potential Savings
Mar	3227	2787	86%	\$401,613.97	\$121,536.56	\$83,658.42	\$363,735.83	\$37,878.14
Apr	3766	3376	90%	\$331,253.72	\$145,021.53	\$99,322.55	\$285,554.74	\$45,698.98
May	4109	3730	91%	\$311,734.96	\$149,751.30	\$100,379.92	\$262,363.58	\$49,371.38
Jun	3909	3392	87%	\$349,721.58	\$146,182.52	\$100,229.28	\$303,768.34	\$45,953.24
Jul	3388	2811	83%	\$460,252.90	\$117,525.58	\$78,386.57	\$421,113.89	\$39,139.01
Aug	5544	4932	89%	\$557,929.07	\$212,757.55	\$110,640.95	\$455,812.47	\$102,116.60
Sep	6383	5770	90%	\$560,126.09	\$262,830.12	\$149,061.45	\$446,357.42	\$113,768.67
Total	30326	26798	88%	\$2,972,632.29	\$1,155,605.16	\$721,679.14	\$2,538,706.27	\$433,926.02

DDSP to AF								
Month	Total Shipments	< 29 lbs	% < 29 lbs	Total Costs	< 29 lbs	< 29 lbs Consol	Total if Consol	Potential Savings
Mar	3227	2577	80%	\$401,613.97	\$96,296.70	\$56,382.48	\$361,699.75	\$39,914.22
Apr	3766	3098	82%	\$331,253.72	\$112,410.69	\$64,105.60	\$282,948.63	\$48,305.09
May	4109	3455	84%	\$311,734.96	\$120,157.54	\$65,331.40	\$256,908.82	\$54,826.14
Jun	3909	3110	80%	\$349,721.58	\$112,939.75	\$64,077.87	\$300,859.70	\$48,861.88
Jul	3388	2577	76%	\$460,252.90	\$90,030.30	\$48,743.89	\$418,966.49	\$41,286.41
Aug	5544	4671	84%	\$557,929.07	\$181,554.28	\$79,907.64	\$456,282.43	\$101,646.64
Sep	6383	5435	85%	\$560,126.09	\$221,691.41	\$105,691.72	\$444,126.40	\$115,999.69
Total	30326	24923	82%	\$2,972,632.29	\$935,080.67	\$484,240.60	\$2,521,792.22	\$450,840.07

## Appendix B: First Consolidation Profile Monthly Data Tables

< 50 lbs Mar 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
15	B	12	164	\$4.25	\$696.40	\$3.39	\$555.96
16	B	115	1009	\$5.00	\$5,048.03	\$3.39	\$3,420.51
17	B	96	780	\$5.10	\$3,981.50	\$3.39	\$2,644.20
18	B	103	856	\$5.12	\$4,378.59	\$3.39	\$2,901.84
19	B	111	882	\$5.24	\$4,617.58	\$3.39	\$2,989.98
22	B	150	1917	\$4.19	\$8,029.52	\$3.39	\$6,498.63
	K	102	690	\$5.54	\$3,821.03	\$3.39	\$2,339.10
23	B	194	1783	\$4.83	\$8,614.31	\$3.39	\$6,044.37
	K	205	1496	\$5.38	\$8,051.14	\$3.39	\$5,071.44
24	B	79	707	\$4.90	\$3,466.17	\$3.39	\$2,396.73
	K	143	1078	\$5.30	\$5,713.93	\$3.39	\$3,654.42
25	B	104	1038	\$4.71	\$4,891.54	\$3.39	\$3,518.82
	K	184	1232	\$5.59	\$6,889.74	\$3.39	\$4,176.48
26	B	114	968	\$5.01	\$4,848.33	\$3.39	\$3,281.52
	K	133	995	\$5.38	\$5,349.02	\$3.39	\$3,373.05
29	B	188	2031	\$4.50	\$9,145.31	\$3.39	\$6,885.09
	K	244	2209	\$4.93	\$10,894.91	\$3.39	\$7,488.51
30	B	102	894	\$4.92	\$4,400.38	\$3.39	\$3,030.66
	K	191	1597	\$5.07	\$8,103.31	\$3.39	\$5,413.83
31	B	134	1530	\$4.39	\$6,717.96	\$3.39	\$5,186.70
	K	83	822	\$4.72	\$3,877.86	\$3.39	\$2,786.58
Total	N/A	2787	24678	\$4.96	\$121,536.56	N/A	\$83,658.42

< 50 lbs APR 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	B	191	1142	\$5.96	\$6,806.35	\$3.39	\$3,871.38
	K	72	675	\$4.79	\$3,231.53	\$3.39	\$2,288.25
2	B	104	987	\$4.79	\$4,723.76	\$3.39	\$3,345.93
	K	48	450	\$4.83	\$2,172.22	\$3.39	\$1,525.50
5	B	95	901	\$4.77	\$4,300.18	\$3.39	\$3,054.39
	K	149	1403	\$4.77	\$6,686.53	\$3.39	\$4,756.17
6	B	91	813	\$4.90	\$3,984.01	\$3.39	\$2,756.07
	K	95	641	\$5.55	\$3,557.70	\$3.39	\$2,172.99
7	B	124	1197	\$4.75	\$5,686.03	\$3.39	\$4,057.83
	K	70	511	\$5.46	\$2,788.30	\$3.39	\$1,732.29
8	B	44	251	\$6.15	\$1,543.50	\$3.39	\$850.89
	K	138	938	\$5.56	\$5,217.89	\$3.39	\$3,179.82
9	B	4	41	\$4.70	\$192.86	\$3.39	\$138.99
	K	152	1120	\$5.35	\$5,991.39	\$3.39	\$3,796.80
12	B	9	356	\$3.09	\$1,099.69	\$3.39	\$1,206.84
	K	153	1451	\$4.75	\$6,897.84	\$3.39	\$4,918.89
13	B	9	279	\$3.30	\$920.00	\$3.39	\$945.81
	K	73	577	\$5.17	\$2,982.49	\$3.39	\$1,956.03
14	B	1	42	\$3.04	\$127.76	N/A	\$127.76
	K	47	412	\$5.00	\$2,060.11	\$3.39	\$1,396.68
15	B	4	80	\$3.87	\$309.88	\$3.39	\$271.20
	K	119	668	\$6.09	\$4,070.66	\$3.39	\$2,264.52
16	B	6	66	\$4.81	\$317.28	\$3.39	\$223.74
	K	118	1403	\$4.43	\$6,210.64	\$3.39	\$4,756.17
19	B	9	221	\$3.55	\$784.23	\$3.39	\$749.19
	K	208	1615	\$5.21	\$8,408.10	\$3.39	\$5,474.85
20	K	139	795	\$6.06	\$4,814.94	\$3.39	\$2,695.05
21	B	4	136	\$3.22	\$437.51	\$3.39	\$461.04
	K	84	844	\$4.70	\$3,966.54	\$3.39	\$2,861.16
22	B	6	155	\$3.37	\$522.58	\$3.39	\$525.45
	K	168	1240	\$5.35	\$6,633.79	\$3.39	\$4,203.60
23	B	2	84	\$3.04	\$255.52	\$3.39	\$284.76
	K	108	789	\$5.42	\$4,275.30	\$3.39	\$2,674.71
26	B	11	303	\$3.38	\$1,024.68	\$3.39	\$1,027.17
	K	213	1994	\$4.80	\$9,579.96	\$3.39	\$6,759.66
27	B	8	169	\$3.67	\$620.35	\$3.39	\$572.91
	K	124	694	\$6.04	\$4,192.24	\$3.39	\$2,352.66
28	B	6	241	\$3.07	\$741.00	\$3.39	\$816.99
	K	38	282	\$5.24	\$1,478.81	\$3.39	\$955.98
29	B	2	36	\$3.76	\$135.21	\$3.39	\$122.04
	K	113	1349	\$4.30	\$5,805.43	\$3.39	\$4,573.11
30	B	3	78	\$3.44	\$268.69	\$3.39	\$264.42
	K	214	1874	\$4.91	\$9,198.05	\$3.39	\$6,352.86
Totals	N/A	3376	29303	\$4.61	\$145,021.53	N/A	\$99,322.55

< 50 lbs MAY 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
3	B	3	98	\$3.24	\$317.52	\$3.39	\$332.22
	K	450	3039	\$5.51	\$16,751.34	\$3.39	\$10,302.21
4	B	1	30	\$3.33	\$100.01	N/A	\$100.01
	K	103	931	\$4.85	\$4,519.17	\$3.39	\$3,156.09
5	B	2	47	\$3.62	\$170.11	\$3.39	\$159.33
	K	54	492	\$4.89	\$2,406.70	\$3.39	\$1,667.88
6	B	1	37	\$3.15	\$116.37	N/A	\$116.37
	K	90	690	\$5.30	\$3,653.93	\$3.39	\$2,339.10
7	B	2	76	\$3.12	\$237.20	\$3.39	\$257.64
	K	157	1013	\$5.70	\$5,775.72	\$3.39	\$3,434.07
10	B	14	380	\$3.44	\$1,306.24	\$3.39	\$1,288.20
	K	304	1911	\$5.78	\$11,041.31	\$3.39	\$6,478.29
11	B	17	165	\$5.02	\$828.28	\$3.39	\$559.35
	K	195	1289	\$5.64	\$7,265.38	\$3.39	\$4,369.71
12	K	97	708	\$5.38	\$3,811.67	\$3.39	\$2,400.12
13	K	48	403	\$5.06	\$2,037.25	\$3.39	\$1,366.17
14	B	14	347	\$3.54	\$1,227.08	\$3.39	\$1,176.33
	K	40	418	\$4.53	\$1,893.70	\$3.39	\$1,417.02
17	B	23	531	\$3.62	\$1,921.65	\$3.39	\$1,800.09
	K	225	1629	\$5.39	\$8,786.03	\$3.39	\$5,522.31
18	B	1	45	\$3.00	\$134.81	N/A	\$134.81
	K	271	1803	\$5.66	\$10,201.85	\$3.39	\$6,112.17
19	B	2	55	\$3.42	\$188.08	\$3.39	\$186.45
	K	198	1486	\$5.32	\$7,898.89	\$3.39	\$5,037.54
20	B	2	46	\$3.64	\$167.63	\$3.39	\$155.94
	K	130	932	\$5.58	\$5,203.60	\$3.39	\$3,159.48
21	B	4	81	\$3.83	\$310.08	\$3.39	\$274.59
	K	190	1989	\$3.24	\$6,448.35	\$3.39	\$6,742.71
24	B	3	52	\$3.83	\$199.09	\$3.39	\$176.28
	K	200	2026	\$4.63	\$9,378.22	\$3.39	\$6,868.14
25	B	2	82	\$3.06	\$250.66	\$3.39	\$277.98
	K	282	1635	\$6.00	\$9,814.35	\$3.39	\$5,542.65
26	B	5	153	\$3.32	\$507.21	\$3.39	\$518.67
	K	147	1259	\$4.99	\$6,280.82	\$3.39	\$4,268.01
27	B	2	90	\$3.00	\$269.62	\$3.39	\$305.10
	K	211	1520	\$5.40	\$8,208.45	\$3.39	\$5,152.80
28	B	10	121	\$4.56	\$552.13	\$3.39	\$410.19
	K	230	2010	\$4.76	\$9,570.80	\$3.39	\$6,813.90
Totals	N/A	3730	29619	\$4.40	\$149,751.30	N/A	\$100,379.92

< 50 lbs JUN 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
2	B	7	130	\$3.87	\$502.66	\$3.39	\$440.70
	K	451	3539	\$5.21	\$18,428.41	\$3.39	\$11,997.21
3	B	3	117	\$3.10	\$362.74	\$3.39	\$396.63
	K	144	1015	\$5.45	\$5,533.36	\$3.39	\$3,440.85
4	B	1	38	\$3.12	\$118.60	N/A	\$118.60
	K	60	496	\$5.08	\$2,519.57	\$3.39	\$1,681.44
7	B	19	288	\$4.15	\$1,195.90	\$3.39	\$976.32
	K	131	1097	\$5.02	\$5,503.46	\$3.39	\$3,718.83
8	B	13	331	\$3.51	\$1,162.67	\$3.39	\$1,122.09
	K	295	2062	\$5.49	\$11,316.55	\$3.39	\$6,990.18
9	B	8	368	\$2.98	\$1,097.12	\$3.39	\$1,247.52
	K	154	974	\$5.77	\$5,615.88	\$3.39	\$3,301.86
10	B	3	102	\$3.22	\$327.99	\$3.39	\$345.78
	K	76	584	\$5.23	\$3,053.14	\$3.39	\$1,979.76
11	B	7	215	\$3.31	\$710.70	\$3.39	\$728.85
	K	97	614	\$5.79	\$3,552.90	\$3.39	\$2,081.46
15	B	6	158	\$3.46	\$546.35	\$3.39	\$535.62
	K	398	3305	\$5.05	\$16,680.87	\$3.39	\$11,203.95
16	B	7	95	\$4.45	\$422.55	\$3.39	\$322.05
	K	154	1054	\$5.50	\$5,792.91	\$3.39	\$3,573.06
17	B	2	12	\$6.18	\$74.12	\$3.39	\$40.68
	K	103	1104	\$4.55	\$5,021.74	\$3.39	\$3,742.56
18	B	2	80	\$3.08	\$246.52	\$3.39	\$271.20
	K	151	1121	\$5.36	\$6,005.45	\$3.39	\$3,800.19
21	B	1	15	\$4.33	\$65.00	N/A	\$65.00
	K	229	2585	\$4.41	\$11,409.94	\$3.39	\$8,763.15
22	B	5	75	\$4.23	\$317.07	\$3.39	\$254.25
	K	105	719	\$5.55	\$3,989.91	\$3.39	\$2,437.41
23	B	18	455	\$3.49	\$1,586.59	\$3.39	\$1,542.45
	K	158	1257	\$5.16	\$6,489.77	\$3.39	\$4,261.23
24	B	6	226	\$3.12	\$705.42	\$3.39	\$766.14
	K	77	851	\$4.52	\$3,845.11	\$3.39	\$2,884.89
25	B	8	254	\$3.28	\$831.96	\$3.39	\$861.06
	K	93	683	\$5.40	\$3,691.08	\$3.39	\$2,315.37
28	B	6	268	\$3.00	\$804.02	\$3.39	\$908.52
	K	235	1416	\$5.99	\$8,475.16	\$3.39	\$4,800.24
29	B	6	202	\$3.22	\$650.75	\$3.39	\$684.78
	K	60	425	\$5.54	\$2,354.79	\$3.39	\$1,440.75
30	B	4	138	\$3.20	\$441.32	\$3.39	\$467.82
	K	89	1097	\$4.31	\$4,732.47	\$3.39	\$3,718.83
Totals	N/A	3392	29565	\$4.42	\$146,182.52	N/A	\$100,229.28

< 50 lbs JUL 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	B	6	244	\$3.07	\$749.03	\$3.39	\$827.16
	K	110	903	\$5.03	\$4,544.09	\$3.39	\$3,061.17
2	B	3	78	\$3.47	\$270.99	\$3.39	\$264.42
	K	70	495	\$5.50	\$2,723.50	\$3.39	\$1,678.05
6	B	6	119	\$3.71	\$441.60	\$3.39	\$403.41
	K	94	688	\$5.33	\$3,664.36	\$3.39	\$2,332.32
7	B	6	206	\$3.20	\$658.73	\$3.39	\$698.34
	K	7	110	\$3.92	\$431.21	\$3.39	\$372.90
8	B	4	114	\$3.39	\$386.82	\$3.39	\$386.46
	K	118	542	\$6.83	\$3,699.24	\$3.39	\$1,837.38
9	B	6	96	\$4.23	\$405.72	\$3.39	\$325.44
	K	156	1339	\$5.05	\$6,756.86	\$3.39	\$4,539.21
12	K	143	1419	\$4.81	\$6,821.60	\$3.39	\$4,810.41
13	B	18	602	\$3.22	\$1,941.36	\$3.39	\$2,040.78
	K	169	858	\$6.40	\$5,494.00	\$3.39	\$2,908.62
14	B	7	166	\$3.58	\$594.92	\$3.39	\$562.74
	K	117	546	\$6.84	\$3,734.92	\$3.39	\$1,850.94
15	B	1	21	\$3.73	\$78.43	N/A	\$78.43
	K	117	1053	\$4.94	\$5,198.89	\$3.39	\$3,569.67
16	B	6	184	\$3.30	\$606.80	\$3.39	\$623.76
	K	230	1632	\$5.39	\$8,800.68	\$3.39	\$5,532.48
19	B	2	98	\$2.94	\$288.26	\$3.39	\$332.22
	K	235	1499	\$5.74	\$8,610.86	\$3.39	\$5,081.61
20	K	176	1271	\$5.41	\$6,873.85	\$3.39	\$4,308.69
21	B	4	140	\$3.19	\$446.84	\$3.39	\$474.60
	K	175	922	\$6.29	\$5,802.37	\$3.39	\$3,125.58
22	B	10	195	\$3.58	\$698.64	\$3.39	\$661.05
	K	177	1185	\$5.60	\$6,637.30	\$3.39	\$4,017.15
23	B	4	91	\$3.64	\$330.86	\$3.39	\$308.49
	K	143	1512	\$4.52	\$6,838.57	\$3.39	\$5,125.68
26	B	1	45	\$3.00	\$134.81	N/A	\$134.81
	K	215	1851	\$5.00	\$9,252.13	\$3.39	\$6,274.89
27	B	6	237	\$3.04	\$721.59	\$3.39	\$803.43
	K	71	632	\$4.90	\$3,095.87	\$3.39	\$2,142.48
28	B	9	312	\$3.19	\$996.53	\$3.39	\$1,057.68
	K	61	500	\$5.04	\$2,522.36	\$3.39	\$1,695.00
29	K	52	343	\$5.61	\$1,925.36	\$3.39	\$1,162.77
	S	9	56	\$9.51	\$532.75	\$3.39	\$211.84
30	K	56	670	\$4.45	\$2,978.83	\$3.39	\$2,271.30
	S	11	139	\$6.00	\$834.05	\$3.39	\$493.21
Totals	N/A	2811	23113	\$4.64	\$117,525.58	N/A	\$78,386.57

< 50 lbs AUG 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
2	K	249	1551	\$5.83	\$9,036.64	\$3.39	\$5,257.89
	S	34	173	\$6.80	\$1,176.17	\$3.39	\$608.47
3	K	264	1503	\$6.11	\$9,181.82	\$3.39	\$5,095.17
	S	29	138	\$6.95	\$959.36	\$3.39	\$489.82
4	K	275	2029	\$5.39	\$10,934.33	\$3.39	\$6,878.31
	S	62	541	\$4.95	\$2,675.54	\$3.39	\$1,855.99
	B	13	176	\$4.21	\$741.04	\$3.39	\$596.64
5	K	47	590	\$4.24	\$2,498.89	\$3.39	\$2,000.10
	S	7	15	\$11.36	\$170.40	\$3.39	\$72.85
	B	12	405	\$3.19	\$1,293.80	\$3.39	\$1,372.95
6	K	196	1212	\$5.85	\$7,090.91	\$3.39	\$4,108.68
	S	48	238	\$6.56	\$1,561.00	\$3.39	\$828.82
9	K	145	1800	\$4.36	\$7,854.12	\$3.39	\$6,102.00
	S	48	240	\$10.94	\$2,625.75	\$3.39	\$835.60
	B	11	201	\$3.91	\$785.33	\$3.39	\$681.39
10	K	113	981	\$4.99	\$4,898.59	\$3.39	\$3,325.59
	S	68	269	\$13.06	\$3,513.10	\$3.39	\$933.91
11	K	189	911	\$6.64	\$6,044.85	\$3.39	\$3,088.29
	S	55	216	\$13.20	\$2,850.29	\$3.39	\$754.24
	B	6	56	\$5.10	\$285.61	\$3.39	\$189.84
12	K	34	306	\$4.84	\$1,482.30	\$3.39	\$1,037.34
	S	21	85	\$12.91	\$1,097.66	\$3.39	\$310.15
13	K	98	683	\$5.52	\$3,768.73	\$3.39	\$2,315.37
	S	68	378	\$10.27	\$3,881.42	\$3.39	\$1,303.42
	B	5	196	\$3.09	\$606.51	\$3.39	\$664.44
16	K	66	642	\$4.73	\$3,033.80	\$3.39	\$2,176.38
	S	108	442	\$12.80	\$5,657.41	\$3.39	\$1,520.38
17	K	90	937	\$4.60	\$4,313.91	\$3.39	\$3,176.43
	S	56	358	\$9.29	\$3,324.61	\$3.39	\$1,235.62
18	K	288	2548	\$4.90	\$12,478.60	\$3.39	\$8,637.72
	S	202	750	\$13.71	\$10,285.37	\$3.39	\$2,564.50
	B	17	433	\$3.48	\$1,505.12	\$3.39	\$1,467.87
19	K	137	717	\$6.47	\$4,637.52	\$3.39	\$2,430.63
	S	58	237	\$12.65	\$2,997.01	\$3.39	\$825.43
	B	1	36	\$3.17	\$114.12	N/A	\$114.12
20	K	202	1554	\$5.18	\$8,056.74	\$3.39	\$5,268.06
	S	68	159	\$20.09	\$3,195.06	\$3.39	\$561.01
	B	4	120	\$3.33	\$399.64	\$3.39	\$406.80
23	K	207	1315	\$5.74	\$7,551.82	\$3.39	\$4,457.85
	S	54	389	\$8.42	\$3,274.79	\$3.39	\$1,340.71
24	K	132	1359	\$4.57	\$6,209.18	\$3.39	\$4,607.01
	S	12	168	\$5.48	\$920.59	\$3.39	\$591.52
	B	2	45	\$3.65	\$164.38	\$3.39	\$152.55
25	K	99	1046	\$4.65	\$4,864.31	\$3.39	\$3,545.94
	S	24	182	\$8.11	\$1,476.33	\$3.39	\$638.98
	B	1	30	\$3.33	\$100.01	N/A	\$100.01
26	K	199	919	\$6.83	\$6,276.34	\$3.39	\$3,115.41
	S	77	373	\$11.18	\$4,171.61	\$3.39	\$1,286.47
	B	4	79	\$3.81	\$300.82	\$3.39	\$267.81
27	K	143	881	\$5.82	\$5,124.04	\$3.39	\$2,986.59
	S	33	266	\$7.79	\$2,072.91	\$3.39	\$923.74
30	K	212	1061	\$6.59	\$6,993.72	\$3.39	\$3,596.79
	S	73	229	\$15.78	\$3,612.65	\$3.39	\$798.31
	B	9	336	\$3.14	\$1,054.04	\$3.39	\$1,139.04
31	K	181	1273	\$5.47	\$6,964.55	\$3.39	\$4,315.47
	S	64	331	\$10.61	\$3,512.67	\$3.39	\$1,144.09
	B	12	332	\$3.31	\$1,099.72	\$3.39	\$1,125.48
Totals	N/A	4932	34440	\$7.00	\$212,757.55	N/A	\$117,225.99

< 50 lbs SEPT 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	K	110	723	\$5.71	\$4,125.90	\$3.39	\$2,450.97
	S	32	153	\$11.39	\$1,742.29	\$3.39	\$540.67
2	K	117	874	\$5.25	\$4,588.58	\$3.39	\$2,962.86
	S	50	267	\$10.27	\$2,742.25	\$3.39	\$927.13
	B	7	152	\$3.66	\$556.46	\$3.39	\$515.28
3	K	103	747	\$5.41	\$4,040.65	\$3.39	\$2,532.33
	S	31	174	\$10.09	\$1,755.51	\$3.39	\$611.86
7	K	145	1454	\$4.68	\$6,802.85	\$3.39	\$4,929.06
	S	29	146	\$10.88	\$1,588.71	\$3.39	\$516.94
	B	1	46	\$2.98	\$137.06	N/A	\$137.06
8	K	78	662	\$5.07	\$3,353.47	\$3.39	\$2,244.18
	S	62	385	\$9.31	\$3,583.10	\$3.39	\$1,327.15
	B	2	30	\$4.24	\$127.18	\$3.39	\$101.70
	M	1	7	\$8.89	\$62.23	N/A	\$62.23
9	K	82	493	\$5.91	\$2,911.25	\$3.39	\$1,671.27
	S	21	124	\$9.81	\$1,216.95	\$3.39	\$442.36
10	K	151	1020	\$5.59	\$5,702.90	\$3.39	\$3,457.80
	S	77	456	\$9.69	\$4,416.64	\$3.39	\$1,567.84
13	K	335	2306	\$5.53	\$12,750.81	\$3.39	\$7,817.34
	S	113	493	\$12.14	\$5,985.51	\$3.39	\$1,693.27
	B	10	286	\$3.31	\$946.90	\$3.39	\$969.54
14	K	448	4327	\$4.78	\$20,679.41	\$3.39	\$14,668.53
	S	119	1098	\$7.20	\$7,907.54	\$3.39	\$3,744.22
	B	2	46	\$3.59	\$165.34	\$3.39	\$155.94
	L	1	6	\$6.18	\$37.06	N/A	\$37.06
15	K	204	1047	\$6.43	\$6,731.37	\$3.39	\$3,549.33
	S	70	299	\$12.33	\$3,687.52	\$3.39	\$1,035.61
	B	28	703	\$3.49	\$2,454.54	\$3.39	\$2,383.17
16	K	247	2271	\$4.79	\$10,876.43	\$3.39	\$7,698.69
	S	39	232	\$9.61	\$2,229.33	\$3.39	\$808.48
17	K	208	1827	\$4.87	\$8,903.75	\$3.39	\$6,193.53
	S	54	395	\$8.48	\$3,349.85	\$3.39	\$1,361.05
20	K	292	2491	\$4.98	\$12,409.78	\$3.39	\$8,444.49
	S	63	370	\$9.67	\$3,576.89	\$3.39	\$1,276.30
21	K	319	2142	\$5.58	\$11,962.46	\$3.39	\$7,261.38
	S	134	624	\$11.48	\$7,162.01	\$3.39	\$2,137.36
	B	17	487	\$3.37	\$1,642.50	\$3.39	\$1,650.93
22	K	174	1352	\$5.23	\$7,065.73	\$3.39	\$4,583.28
	S	59	159	\$17.85	\$2,838.92	\$3.39	\$561.01
23	K	252	1932	\$5.27	\$10,181.32	\$3.39	\$6,549.48
	S	65	356	\$10.20	\$3,631.74	\$3.39	\$1,228.84
24	K	135	1251	\$4.92	\$6,150.49	\$3.39	\$4,240.89
	S	19	188	\$6.94	\$1,304.60	\$3.39	\$659.32
	B	7	188	\$3.39	\$637.68	\$3.39	\$637.32
27	K	249	1540	\$5.84	\$8,997.16	\$3.39	\$5,220.60
	S	154	903	\$9.73	\$8,788.88	\$3.39	\$3,083.17
28	K	181	1324	\$5.38	\$7,120.72	\$3.39	\$4,488.36
	S	97	962	\$6.90	\$6,638.41	\$3.39	\$3,283.18
	L	1	3	\$8.96	\$26.87	N/A	\$26.87
29	K	151	1236	\$5.14	\$6,350.81	\$3.39	\$4,190.04
	S	50	400	\$7.85	\$3,138.48	\$3.39	\$1,378.00
30	K	253	2057	\$5.13	\$10,560.69	\$3.39	\$6,973.23
	S	115	437	\$13.54	\$5,917.95	\$3.39	\$1,503.43
	B	6	168	\$3.37	\$566.69	\$3.39	\$569.52
Totals	N/A	5770	43819	\$7.08	\$262,830.12	N/A	\$149,061.45



### Appendix C: Second Consolidation Profile Monthly Data Tables

< 29 lbs Mar 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
15	B	11	131	\$4.50	\$589.18	\$3.39	\$444.09
16	B	110	824	\$5.42	\$4,466.91	\$3.39	\$2,793.36
17	B	96	528	\$6.09	\$3,214.37	\$3.39	\$1,789.92
18	B	95	581	\$6.02	\$3,496.93	\$3.39	\$1,969.59
19	B	105	657	\$5.96	\$3,913.33	\$3.39	\$2,227.23
22	B	119	739	\$5.89	\$4,353.88	\$3.39	\$2,505.21
	K	97	473	\$6.69	\$3,165.40	\$3.39	\$1,603.47
23	B	178	1158	\$5.77	\$6,677.70	\$3.39	\$3,925.62
	K	192	1021	\$6.42	\$6,553.18	\$3.39	\$3,461.19
24	B	74	492	\$5.72	\$2,815.71	\$3.39	\$1,667.88
	K	135	785	\$6.10	\$4,790.43	\$3.39	\$2,661.15
25	B	93	673	\$5.51	\$3,709.82	\$3.39	\$2,281.47
	K	175	920	\$6.40	\$5,891.96	\$3.39	\$3,118.80
26	B	105	632	\$6.00	\$3,793.96	\$3.39	\$2,142.48
	K	128	811	\$5.88	\$4,770.10	\$3.39	\$2,749.29
29	B	165	1180	\$5.48	\$6,471.28	\$3.39	\$4,000.20
	K	233	1846	\$5.26	\$9,717.61	\$3.39	\$6,257.94
30	B	94	596	\$5.81	\$3,465.29	\$3.39	\$2,020.44
	K	182	1258	\$5.60	\$7,042.92	\$3.39	\$4,264.62
31	B	116	837	\$5.45	\$4,563.05	\$3.39	\$2,837.43
	K	74	490	\$5.78	\$2,833.69	\$3.39	\$1,661.10
Totals	N/A	2577	16632	\$5.80	\$96,296.70	N/A	\$56,382.48

< 29 lbs APR 2010

Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	B	185	894	\$6.77	\$6,048.86	\$3.39	\$3,030.66
	K	64	380	\$6.06	\$2,303.72	\$3.39	\$1,288.20
2	B	96	689	\$5.50	\$3,788.97	\$3.39	\$2,335.71
	K	45	347	\$5.31	\$1,842.07	\$3.39	\$1,176.33
5	B	86	563	\$5.76	\$3,241.71	\$3.39	\$1,908.57
	K	136	885	\$5.75	\$5,089.98	\$3.39	\$3,000.15
6	B	80	442	\$6.31	\$2,788.65	\$3.39	\$1,498.38
	K	88	388	\$7.11	\$2,757.62	\$3.39	\$1,315.32
7	B	116	908	\$5.26	\$4,771.66	\$3.39	\$3,078.12
	K	67	404	\$6.06	\$2,448.70	\$3.39	\$1,369.56
8	B	44	251	\$6.15	\$1,543.50	\$3.39	\$850.89
	K	132	705	\$6.38	\$4,494.70	\$3.39	\$2,389.95
9	B	4	41	\$4.70	\$192.86	\$3.39	\$138.99
	K	143	787	\$6.28	\$4,944.24	\$3.39	\$2,667.93
12	K	137	804	\$6.11	\$4,912.20	\$3.39	\$2,725.56
13	B	4	78	\$3.87	\$301.78	\$3.39	\$264.42
	K	71	503	\$5.47	\$2,749.93	\$3.39	\$1,705.17
14	K	43	285	\$5.77	\$1,643.45	\$3.39	\$966.15
15	B	4	80	\$3.87	\$309.88	\$3.39	\$271.20
	K	115	510	\$7.02	\$3,582.38	\$3.39	\$1,728.90
16	B	6	66	\$4.81	\$317.28	\$3.39	\$223.74
	K	108	1064	\$4.81	\$5,119.20	\$3.39	\$3,606.96
19	B	8	185	\$3.62	\$670.11	\$3.39	\$627.15
	K	192	1012	\$6.44	\$6,522.21	\$3.39	\$3,430.68
20	K	132	564	\$7.21	\$4,066.06	\$3.39	\$1,911.96
21	B	1	18	\$4.03	\$72.55	N/A	\$72.55
	K	78	632	\$5.21	\$3,291.60	\$3.39	\$2,142.48
22	B	2	7	\$8.25	\$57.78	\$3.39	\$23.73
	K	159	898	\$6.20	\$5,566.75	\$3.39	\$3,044.22
23	K	104	633	\$5.99	\$3,791.36	\$3.39	\$2,145.87
26	B	6	92	\$4.17	\$383.21	\$3.39	\$311.88
	K	192	1206	\$5.90	\$7,111.79	\$3.39	\$4,088.34
27	B	7	139	\$3.74	\$520.34	\$3.39	\$471.21
	K	116	395	\$8.24	\$3,254.95	\$3.39	\$1,339.05
28	B	1	15	\$4.33	\$65.00	N/A	\$65.00
	K	35	156	\$7.02	\$1,095.22	\$3.39	\$528.84
29	B	1	4	\$7.60	\$30.40	N/A	\$30.40
	K	92	586	\$5.80	\$3,396.49	\$3.39	\$1,986.54
30	B	1	10	\$4.97	\$49.71	N/A	\$49.71
	K	197	1267	\$5.74	\$7,271.82	\$3.39	\$4,295.13
Totals	N/A	3098	18893	\$5.74	\$112,410.69	N/A	\$64,105.60

< 29 lbs MAY 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
3	B	2	50	\$3.52	\$175.82	\$3.39	\$169.50
	K	414	1705	\$7.37	\$12,559.23	\$3.39	\$5,779.95
4	K	95	612	\$5.78	\$3,535.86	\$3.39	\$2,074.68
5	B	1	17	\$4.12	\$70.10	N/A	\$70.10
	K	52	412	\$5.24	\$2,160.18	\$3.39	\$1,396.68
6	K	85	516	\$6.00	\$3,097.44	\$3.39	\$1,749.24
7	K	150	743	\$6.64	\$4,936.81	\$3.39	\$2,518.77
10	B	8	182	\$3.64	\$662.92	\$3.39	\$616.98
	K	293	1465	\$6.60	\$9,672.64	\$3.39	\$4,966.35
11	B	17	165	\$5.02	\$828.28	\$3.39	\$559.35
	K	183	866	\$6.83	\$5,918.00	\$3.39	\$2,935.74
12	K	90	479	\$6.40	\$3,067.59	\$3.39	\$1,623.81
13	K	46	320	\$5.58	\$1,784.00	\$3.39	\$1,084.80
14	B	11	212	\$3.88	\$822.81	\$3.39	\$718.68
	K	35	214	\$5.93	\$1,268.59	\$3.39	\$725.46
17	B	21	463	\$3.68	\$1,702.67	\$3.39	\$1,569.57
	K	210	1093	\$6.48	\$7,085.65	\$3.39	\$3,705.27
18	K	263	1499	\$6.17	\$9,253.29	\$3.39	\$5,081.61
19	B	1	15	\$4.33	\$65.00	N/A	\$65.00
	K	188	1129	\$5.99	\$6,765.57	\$3.39	\$3,827.31
20	B	1	16	\$4.23	\$67.62	N/A	\$67.62
	K	129	884	\$5.73	\$5,061.90	\$3.39	\$2,996.76
21	B	3	48	\$4.23	\$202.86	\$3.39	\$162.72
	K	162	930	\$6.17	\$5,742.24	\$3.39	\$3,152.70
24	B	2	15	\$5.51	\$82.72	\$3.39	\$50.85
	K	178	1200	\$5.66	\$6,791.56	\$3.39	\$4,068.00
25	K	268	1094	\$7.43	\$8,133.26	\$3.39	\$3,708.66
26	B	2	44	\$3.70	\$162.79	\$3.39	\$149.16
	K	134	766	\$6.19	\$4,741.51	\$3.39	\$2,596.74
27	K	202	1135	\$6.20	\$7,042.05	\$3.39	\$3,847.65
28	B	10	121	\$4.56	\$552.13	\$3.39	\$410.19
	K	199	850	\$7.23	\$6,144.45	\$3.39	\$2,881.50
Totals	N/A	3455	19260	\$5.50	\$120,157.54	N/A	\$65,331.40

< 29 lbs JUN 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
2	B	6	89	\$4.24	\$377.33	\$3.39	\$301.71
	K	427	2615	\$5.95	\$15,554.26	\$3.39	\$8,864.85
3	K	134	641	\$6.80	\$4,360.77	\$3.39	\$2,172.99
4	K	56	341	\$5.98	\$2,037.89	\$3.39	\$1,155.99
7	B	17	200	\$4.66	\$931.10	\$3.39	\$678.00
	K	120	653	\$6.34	\$4,138.73	\$3.39	\$2,213.67
8	B	9	158	\$4.05	\$639.99	\$3.39	\$535.62
	K	280	1524	\$6.31	\$9,611.19	\$3.39	\$5,166.36
9	K	149	798	\$6.33	\$5,054.94	\$3.39	\$2,705.22
10	B	1	17	\$4.12	\$70.10	N/A	\$70.10
	K	70	352	\$6.63	\$2,332.38	\$3.39	\$1,193.28
11	B	2	37	\$3.93	\$145.26	\$3.39	\$125.43
	K	93	483	\$6.48	\$3,127.54	\$3.39	\$1,637.37
15	B	3	49	\$4.13	\$202.41	\$3.39	\$166.11
	K	367	2156	\$6.06	\$13,072.54	\$3.39	\$7,308.84
16	B	7	95	\$4.45	\$422.55	\$3.39	\$322.05
	K	144	651	\$6.99	\$4,553.51	\$3.39	\$2,206.89
17	B	2	12	\$6.18	\$74.12	\$3.39	\$40.68
	K	92	737	\$5.27	\$3,885.50	\$3.39	\$2,498.43
18	K	143	820	\$6.18	\$5,063.62	\$3.39	\$2,779.80
21	B	1	15	\$4.33	\$65.00	N/A	\$65.00
	K	195	1336	\$5.60	\$7,476.02	\$3.39	\$4,529.04
22	B	5	75	\$4.23	\$317.07	\$3.39	\$254.25
	K	100	532	\$6.40	\$3,403.74	\$3.39	\$1,803.48
23	B	10	164	\$4.07	\$667.94	\$3.39	\$555.96
	K	147	856	\$6.10	\$5,224.40	\$3.39	\$2,901.84
24	B	2	44	\$3.68	\$161.70	\$3.39	\$149.16
	K	68	539	\$5.28	\$2,846.74	\$3.39	\$1,827.21
25	B	3	56	\$3.93	\$220.33	\$3.39	\$189.84
	K	89	523	\$6.11	\$3,197.85	\$3.39	\$1,772.97
28	K	230	1225	\$6.43	\$7,880.03	\$3.39	\$4,152.75
29	B	1	15	\$4.33	\$65.00	N/A	\$65.00
	K	58	357	\$5.98	\$2,136.18	\$3.39	\$1,210.23
30	B	1	25	\$3.52	\$87.91	\$0.00	\$0.00
	K	78	725	\$4.87	\$3,534.11	\$3.39	\$2,457.75
Totals	N/A	3110	18915	\$5.31	\$112,939.75	N/A	\$64,077.87

< 29 lbs JUL 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	K	99	480	\$6.73	\$3,228.08	\$3.39	\$1,627.20
2	B	3	78	\$3.47	\$270.99	\$3.39	\$264.42
	K	68	414	\$5.98	\$2,474.57	\$3.39	\$1,403.46
6	B	4	40	\$4.94	\$197.46	\$3.39	\$135.60
	K	88	431	\$6.70	\$2,885.64	\$3.39	\$1,461.09
7	B	2	42	\$3.73	\$156.86	\$3.39	\$142.38
	K	5	35	\$5.61	\$196.39	\$3.39	\$118.65
8	B	1	18	\$4.03	\$72.55	N/A	\$72.55
	K	115	415	\$7.98	\$3,313.77	\$3.39	\$1,406.85
9	B	6	96	\$4.23	\$405.72	\$3.39	\$325.44
	K	147	1042	\$5.56	\$5,794.00	\$3.39	\$3,532.38
12	K	136	1148	\$5.21	\$5,979.48	\$3.39	\$3,891.72
13	B	2	33	\$4.05	\$133.73	\$3.39	\$111.87
	K	160	528	\$8.44	\$4,454.29	\$3.39	\$1,789.92
14	B	6	118	\$3.84	\$453.22	\$3.39	\$400.02
	K	114	447	\$7.64	\$3,414.25	\$3.39	\$1,515.33
15	B	1	21	\$3.73	\$78.43	N/A	\$78.43
	K	108	721	\$5.76	\$4,154.70	\$3.39	\$2,444.19
16	B	4	88	\$3.68	\$323.40	\$3.39	\$298.32
	K	213	990	\$6.86	\$6,793.82	\$3.39	\$3,356.10
19	K	223	1095	\$6.67	\$7,308.05	\$3.39	\$3,712.05
20	K	165	893	\$6.34	\$5,661.38	\$3.39	\$3,027.27
21	K	167	628	\$7.77	\$4,876.42	\$3.39	\$2,128.92
22	B	7	58	\$5.00	\$289.73	\$3.39	\$196.62
	K	169	891	\$6.41	\$5,711.34	\$3.39	\$3,020.49
23	B	3	46	\$4.26	\$196.05	\$3.39	\$155.94
	K	121	682	\$6.22	\$4,243.13	\$3.39	\$2,311.98
26	K	200	1312	\$5.75	\$7,545.23	\$3.39	\$4,447.68
27	B	1	3	\$8.96	\$26.87	N/A	\$26.87
	K	66	438	\$5.69	\$2,493.67	\$3.39	\$1,484.82
28	B	1	14	\$4.43	\$61.99	N/A	\$61.99
	K	55	270	\$6.69	\$1,806.36	\$3.39	\$915.30
29	K	48	205	\$7.23	\$1,483.02	\$3.39	\$694.95
	S	9	56	\$9.51	\$532.75	\$3.39	\$211.84
30	K	51	502	\$4.85	\$2,437.01	\$3.39	\$1,701.78
	S	9	73	\$7.89	\$575.95	\$3.39	\$269.47
Totals	N/A	2577	14351	\$5.88	\$90,030.30	N/A	\$48,743.89

< 29 lbs AUG 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
2	K	238	1137	\$6.81	\$7,741.65	\$3.39	\$3,854.43
	S	34	173	\$6.80	\$1,176.17	\$3.39	\$608.47
3	K	257	1250	\$6.71	\$8,381.57	\$3.39	\$4,237.50
	S	29	138	\$6.95	\$959.36	\$3.39	\$489.82
4	K	265	1646	\$5.92	\$9,741.57	\$3.39	\$5,579.94
	S	58	395	\$5.61	\$2,214.91	\$3.39	\$1,361.05
	B	11	88	\$5.41	\$476.22	\$3.39	\$298.32
5	K	42	367	\$4.99	\$1,829.83	\$3.39	\$1,244.13
	S	7	15	\$11.36	\$170.40	\$3.39	\$72.85
	B	4	73	\$3.84	\$280.28	\$3.39	\$247.47
6	K	189	988	\$6.44	\$6,358.19	\$3.39	\$3,349.32
	S	47	200	\$7.21	\$1,442.40	\$3.39	\$700.00
9	K	134	1323	\$4.85	\$6,413.12	\$3.39	\$4,484.97
	S	46	167	\$14.08	\$2,351.77	\$3.39	\$588.13
	B	9	137	\$4.20	\$575.71	\$3.39	\$464.43
10	K	106	714	\$5.69	\$4,065.76	\$3.39	\$2,420.46
	S	67	222	\$15.10	\$3,351.64	\$3.39	\$774.58
11	K	186	796	\$7.14	\$5,686.63	\$3.39	\$2,698.44
	S	55	216	\$13.20	\$2,850.29	\$3.39	\$754.24
	B	6	56	\$5.10	\$285.61	\$3.39	\$189.84
12	K	31	186	\$5.98	\$1,113.04	\$3.39	\$630.54
	S	21	85	\$12.91	\$1,097.66	\$3.39	\$310.15
13	K	93	487	\$6.49	\$3,161.75	\$3.39	\$1,650.93
	S	68	378	\$10.27	\$3,881.42	\$3.39	\$1,303.42
	B	1	28	\$3.40	\$95.17	N/A	\$95.17
16	K	59	378	\$5.84	\$2,208.51	\$3.39	\$1,281.42
	S	108	442	\$12.80	\$5,657.41	\$3.39	\$1,520.38
17	K	86	793	\$4.86	\$3,857.78	\$3.39	\$2,688.27
	S	55	323	\$9.88	\$3,190.90	\$3.39	\$1,116.97
18	K	267	1804	\$5.61	\$10,114.66	\$3.39	\$6,115.56
	S	199	639	\$15.45	\$9,870.28	\$3.39	\$2,188.21
	B	10	180	\$3.92	\$704.90	\$3.39	\$610.20
19	K	137	717	\$6.47	\$4,637.52	\$3.39	\$2,430.63
	S	56	160	\$16.96	\$2,713.54	\$3.39	\$564.40
20	K	182	821	\$7.00	\$5,749.45	\$3.39	\$2,783.19
	S	68	159	\$20.09	\$3,195.06	\$3.39	\$561.01
	B	1	25	\$3.52	\$87.91	N/A	\$87.91
23	K	198	959	\$6.73	\$6,451.55	\$3.39	\$3,251.01
	S	52	310	\$9.63	\$2,986.65	\$3.39	\$1,072.90
24	K	112	595	\$6.43	\$3,827.03	\$3.39	\$2,017.05
	S	8	30	\$13.01	\$390.24	\$3.39	\$123.70
	B	1	14	\$4.43	\$61.99	N/A	\$61.99
25	K	90	735	\$5.26	\$3,867.55	\$3.39	\$2,491.65
	S	22	95	\$12.32	\$1,169.94	\$3.39	\$344.05
26	K	194	734	\$7.76	\$5,695.05	\$3.39	\$2,488.26
	S	74	272	\$13.90	\$3,779.79	\$3.39	\$944.08
	B	4	79	\$3.81	\$300.82	\$3.39	\$267.81
27	K	134	569	\$7.25	\$4,126.88	\$3.39	\$1,928.91
	S	30	157	\$10.59	\$1,662.64	\$3.39	\$554.23
30	K	209	946	\$7.01	\$6,635.49	\$3.39	\$3,206.94
	S	73	229	\$15.78	\$3,612.65	\$3.39	\$798.31
31	K	173	991	\$6.12	\$6,066.03	\$3.39	\$3,359.49
	S	61	215	\$14.36	\$3,086.35	\$3.39	\$750.85
	B	4	25	\$5.74	\$143.59	\$3.39	\$84.75
Totals	N/A	4671	24661	\$8.31	\$181,554.28	N/A	\$79,907.64

< 29 lbs SEPT 2010							
Day	Dest	Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
1	K	107	612	\$6.17	\$3,776.80	\$3.39	\$2,074.68
	S	32	153	\$11.39	\$1,742.29	\$3.39	\$540.67
2	K	107	502	\$6.82	\$3,421.13	\$3.39	\$1,701.78
	S	47	134	\$16.99	\$2,276.66	\$3.39	\$476.26
	B	5	81	\$4.09	\$331.12	\$3.39	\$274.59
3	K	99	599	\$5.97	\$3,575.36	\$3.39	\$2,030.61
	S	30	145	\$11.28	\$1,635.93	\$3.39	\$513.55
7	K	132	958	\$5.49	\$5,256.64	\$3.39	\$3,247.62
	S	28	113	\$12.92	\$1,459.49	\$3.39	\$405.07
8	K	75	542	\$5.51	\$2,983.71	\$3.39	\$1,837.38
	S	58	237	\$12.79	\$3,030.33	\$3.39	\$825.43
	B	2	30	\$4.24	\$127.18	\$3.39	\$101.70
	M	1	7	\$8.89	62.23	N/A	62.23
9	K	80	422	\$6.36	\$2,685.91	\$3.39	\$1,430.58
	S	21	124	\$9.81	\$1,216.95	\$3.39	\$442.36
10	K	144	767	\$6.39	\$4,902.80	\$3.39	\$2,600.13
	S	75	383	\$10.82	\$4,142.49	\$3.39	\$1,320.37
13	K	318	1637	\$6.52	\$10,681.19	\$3.39	\$5,549.43
	S	112	461	\$12.71	\$5,858.70	\$3.39	\$1,584.79
	B	3	25	\$5.14	\$128.59	\$3.39	\$84.75
14	K	418	3262	\$5.30	\$17,296.39	\$3.39	\$11,058.18
	S	107	694	\$9.14	\$6,341.20	\$3.39	\$2,374.66
	B	1	12	\$4.65	\$55.85	\$3.39	\$40.68
	L	1	6	\$6.18	\$37.06	N/A	\$37.06
15	K	198	840	\$7.22	\$6,068.01	\$3.39	\$2,847.60
	S	69	261	\$13.59	\$3,546.92	\$3.39	\$906.79
	B	18	295	\$4.08	\$1,204.69	\$3.39	\$1,000.05
16	K	224	1347	\$5.96	\$8,032.63	\$3.39	\$4,566.33
	S	38	184	\$11.23	\$2,065.63	\$3.39	\$645.76
17	K	186	954	\$6.51	\$6,208.88	\$3.39	\$3,234.06
	S	53	347	\$9.18	\$3,186.15	\$3.39	\$1,198.33
20	K	267	1522	\$6.18	\$9,401.47	\$3.39	\$5,159.58
	S	60	261	\$12.13	\$3,166.79	\$3.39	\$906.79
21	K	301	1465	\$6.72	\$9,844.77	\$3.39	\$4,966.35
	S	131	513	\$13.15	\$6,747.10	\$3.39	\$1,761.07
	B	11	230	\$3.76	\$864.15	\$3.39	\$779.70
22	K	165	1047	\$5.81	\$6,083.74	\$3.39	\$3,549.33
	S	59	159	\$17.85	\$2,838.92	\$3.39	\$561.01
23	K	244	1608	\$5.71	\$9,186.26	\$3.39	\$5,451.12
	S	63	275	\$12.14	\$3,338.97	\$3.39	\$954.25
24	K	127	923	\$5.58	\$5,146.07	\$3.39	\$3,128.97
	S	17	108	\$9.39	\$1,014.44	\$3.39	\$388.12
	B	3	30	\$4.97	\$149.13	\$3.39	\$101.70
27	K	238	1146	\$6.76	\$7,748.98	\$3.39	\$3,884.94
	S	149	706	\$11.43	\$8,069.83	\$3.39	\$2,415.34
28	K	178	1192	\$5.64	\$6,723.01	\$3.39	\$4,040.88
	S	86	524	\$9.63	\$5,045.81	\$3.39	\$1,798.36
	L	1	3	\$8.96	\$26.87	N/A	\$26.87
29	K	143	962	\$5.69	\$5,471.57	\$3.39	\$3,261.18
	S	46	223	\$11.29	\$2,518.08	\$3.39	\$777.97
30	K	239	1508	\$5.88	\$8,860.80	\$3.39	\$5,112.12
	S	115	437	\$13.54	\$5,917.95	\$3.39	\$1,503.43
	B	3	44	\$4.27	\$187.79	\$3.39	\$149.16
Totals	N/A	5435	31020	\$8.30	\$221,691.41	N/A	\$105,691.72

## Appendix D: Shindand Consolidation Monthly Data Tables

Shindand < 50 lbs					
Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
9	56	\$9.51	\$532.75	\$3.39	\$211.84
11	139	\$6.00	\$834.05	\$3.39	\$493.21
34	173	\$6.80	\$1,176.17	\$3.39	\$608.47
29	138	\$6.95	\$959.36	\$3.39	\$489.82
62	541	\$4.95	\$2,675.54	\$3.39	\$1,855.99
7	15	\$11.36	\$170.40	\$3.39	\$72.85
48	238	\$6.56	\$1,561.00	\$3.39	\$828.82
48	240	\$10.94	\$2,625.75	\$3.39	\$835.60
68	269	\$13.06	\$3,513.10	\$3.39	\$933.91
55	216	\$13.20	\$2,850.29	\$3.39	\$754.24
21	85	\$12.91	\$1,097.66	\$3.39	\$310.15
68	378	\$10.27	\$3,881.42	\$3.39	\$1,303.42
108	442	\$12.80	\$5,657.41	\$3.39	\$1,520.38
56	358	\$9.29	\$3,324.61	\$3.39	\$1,235.62
202	750	\$13.71	\$10,285.37	\$3.39	\$2,564.50
58	237	\$12.65	\$2,997.01	\$3.39	\$825.43
68	159	\$20.09	\$3,195.06	\$3.39	\$561.01
54	389	\$8.42	\$3,274.79	\$3.39	\$1,340.71
12	168	\$5.48	\$920.59	\$3.39	\$591.52
24	182	\$8.11	\$1,476.33	\$3.39	\$638.98
77	373	\$11.18	\$4,171.61	\$3.39	\$1,286.47
33	266	\$7.79	\$2,072.91	\$3.39	\$923.74
73	229	\$15.78	\$3,612.65	\$3.39	\$798.31
64	331	\$10.61	\$3,512.67	\$3.39	\$1,144.09
32	153	\$11.39	\$1,742.29	\$3.39	\$540.67
50	267	\$10.27	\$2,742.25	\$3.39	\$927.13
31	174	\$10.09	\$1,755.51	\$3.39	\$611.86
29	146	\$10.88	\$1,588.71	\$3.39	\$516.94
62	385	\$9.31	\$3,583.10	\$3.39	\$1,327.15
21	124	\$9.81	\$1,216.95	\$3.39	\$442.36
77	456	\$9.69	\$4,416.64	\$3.39	\$1,567.84
113	493	\$12.14	\$5,985.51	\$3.39	\$1,693.27
119	1098	\$7.20	\$7,907.54	\$3.39	\$3,744.22
70	299	\$12.33	\$3,687.52	\$3.39	\$1,035.61
39	232	\$9.61	\$2,229.33	\$3.39	\$808.48
54	395	\$8.48	\$3,349.85	\$3.39	\$1,361.05
63	370	\$9.67	\$3,576.89	\$3.39	\$1,276.30
134	624	\$11.48	\$7,162.01	\$3.39	\$2,137.36
59	159	\$17.85	\$2,838.92	\$3.39	\$561.01
65	356	\$10.20	\$3,631.74	\$3.39	\$1,228.84
19	188	\$6.94	\$1,304.60	\$3.39	\$659.32
154	903	\$9.73	\$8,788.88	\$3.39	\$3,083.17
97	962	\$6.90	\$6,638.41	\$3.39	\$3,283.18
50	400	\$7.85	\$3,138.48	\$3.39	\$1,378.00
115	437	\$13.54	\$5,917.95	\$3.39	\$1,503.43
2742	14993	\$10.31	\$149,581.58		\$51,816.27

Shindand < 29 lbs					
Nbr Shipments	wt	AVG Rate	Total Cost	Consol Rate	Consol Cost
9	56	\$9.51	\$532.75	\$3.39	\$211.84
9	73	\$7.89	\$575.95	\$3.39	\$269.47
34	173	\$6.80	\$1,176.17	\$3.39	\$608.47
29	138	\$6.95	\$959.36	\$3.39	\$489.82
58	395	\$5.61	\$2,214.91	\$3.39	\$1,361.05
7	15	\$11.36	\$170.40	\$3.39	\$72.85
47	200	\$7.21	\$1,442.40	\$3.39	\$700.00
46	167	\$14.08	\$2,351.77	\$3.39	\$588.13
67	222	\$15.10	\$3,351.64	\$3.39	\$774.58
55	216	\$13.20	\$2,850.29	\$3.39	\$754.24
21	85	\$12.91	\$1,097.66	\$3.39	\$310.15
68	378	\$10.27	\$3,881.42	\$3.39	\$1,303.42
108	442	\$12.80	\$5,657.41	\$3.39	\$1,520.38
55	323	\$9.88	\$3,190.90	\$3.39	\$1,116.97
199	639	\$15.45	\$9,870.28	\$3.39	\$2,188.21
56	160	\$16.96	\$2,713.54	\$3.39	\$564.40
68	159	\$20.09	\$3,195.06	\$3.39	\$561.01
52	310	\$9.63	\$2,986.65	\$3.39	\$1,072.90
8	30	\$13.01	\$390.24	\$3.39	\$123.70
22	95	\$12.32	\$1,169.94	\$3.39	\$344.05
74	272	\$13.90	\$3,779.79	\$3.39	\$944.08
30	157	\$10.59	\$1,662.64	\$3.39	\$554.23
73	229	\$15.78	\$3,612.65	\$3.39	\$798.31
61	215	\$14.36	\$3,086.35	\$3.39	\$750.85
32	153	\$11.39	\$1,742.29	\$3.39	\$540.67
47	134	\$16.99	\$2,276.66	\$3.39	\$476.26
30	145	\$11.28	\$1,635.93	\$3.39	\$513.55
28	113	\$12.92	\$1,459.49	\$3.39	\$405.07
58	237	\$12.79	\$3,030.33	\$3.39	\$825.43
21	124	\$9.81	\$1,216.95	\$3.39	\$442.36
75	383	\$10.82	\$4,142.49	\$3.39	\$1,320.37
112	461	\$12.71	\$5,858.70	\$3.39	\$1,584.79
107	694	\$9.14	\$6,341.20	\$3.39	\$2,374.66
69	261	\$13.59	\$3,546.92	\$3.39	\$906.79
38	184	\$11.23	\$2,065.63	\$3.39	\$645.76
53	347	\$9.18	\$3,186.15	\$3.39	\$1,198.33
60	261	\$12.13	\$3,166.79	\$3.39	\$906.79
131	513	\$13.15	\$6,747.10	\$3.39	\$1,761.07
59	159	\$17.85	\$2,838.92	\$3.39	\$561.01
63	275	\$12.14	\$3,338.97	\$3.39	\$954.25
17	108	\$9.39	\$1,014.44	\$3.39	\$388.12
149	706	\$11.43	\$8,069.83	\$3.39	\$2,415.34
86	524	\$9.63	\$5,045.81	\$3.39	\$1,798.36
46	223	\$11.29	\$2,518.08	\$3.39	\$777.97
115	437	\$13.54	\$5,917.95	\$3.39	\$1,503.43
2652	11591	\$11.96	\$137,080.80		\$40,283.49



### Appendix E: Simultaneous Employment Data Table

Month	Non-Consol Costs	< 50 lbs Costs	< 29 lbs	Potential Savings	Consol + Claims
Mar	\$401,613.97	\$363,735.83	\$361,699.75	\$361.70	\$361,338.05
Apr	\$331,253.72	\$285,554.74	\$282,948.63	\$0.00	\$282,948.63
May	\$311,734.96	\$262,363.58	\$256,908.82	\$513.82	\$256,395.00
Jun	\$349,721.58	\$303,768.34	\$300,859.70	\$12,936.97	\$287,922.73
Jul	\$460,252.90	\$421,113.89	\$418,966.49	\$25,975.92	\$392,990.57
Aug	\$557,929.07	\$455,812.47	\$456,282.43	\$68,442.36	\$387,840.07
Sep	\$560,126.09	\$446,357.42	\$444,126.40	\$66,618.96	\$377,507.44
		<b>Totals</b>	<b>\$2,521,792.22</b>	<b>\$174,849.73</b>	<b>\$2,346,942.49</b>

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## Quad Chart



# WWX: Exploiting Existing Contract Provisions to Maximize Savings



*The AFIT of Today is the Air Force of Tomorrow.*

### Research Focus:

Using 7 months of DDSP to Afghanistan WWX shipments as a case study to determine the potential cost savings of exploiting existing consolidation and service failure claims provisions within the WWX contract

Major Daniel M. Hervas  
Department of Operational  
Sciences (ENS)

### ADVISOR

Dr. William Cunningham

### Guiding Research Questions:

1. How much potential is there for consolidating WWX shipments?
2. What is the potential savings from consolidation?
3. How much potential is there for service claim utilization?
4. What is the potential savings from maximizing service failure claims?

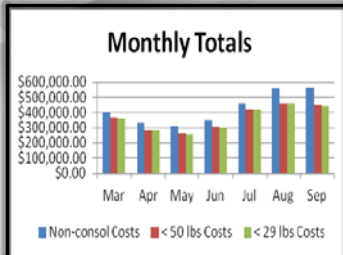
### Significant Consol Potential:

- \* 30K+ DDSP to Afghanistan shipments during sample
- \* 99.9% volume sufficient to consolidate: 0 consolidations
- \* 88% shipments < 50lbs; 82% shipments < 29lbs\*

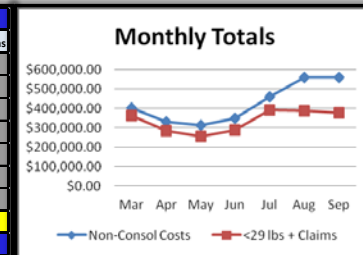


### Significant Service Failure Claims Potential:

- \* Claims rate did not correspond to on-time performance
- \* On average, 5.5% shipments failed to meet service levels
- \* 0 shipper initiated claims filed during sample period



OVERALL RESULTS					
Month	Non-Consol Costs	< 50 lbs Costs	< 29 lbs	Claims	<29 lbs + Claims
Mar	\$401,613.97	\$363,735.83	\$361,699.75	\$401.61	\$361,338.05
Apr	\$331,253.72	\$285,554.74	\$282,948.63	\$0.00	\$282,948.63
May	\$311,734.96	\$262,363.58	\$256,908.82	\$623.47	\$256,395.00
Jun	\$349,721.58	\$303,768.34	\$300,859.70	\$15,038.03	\$287,922.73
Jul	\$460,252.90	\$421,113.89	\$418,966.49	\$28,535.68	\$392,990.57
Aug	\$557,929.07	\$455,812.47	\$456,282.43	\$83,689.36	\$387,840.07
Sep	\$560,126.09	\$446,357.42	\$444,126.40	\$84,018.91	\$377,507.44
Potential Savings	N/A	\$433,926.02	\$450,840.07	\$212,307.07	\$625,689.80



### Further Research Opportunities:

1. Analysis of other WWX shippers, lanes and carriers
2. Analysis of other transportation contracts
3. Analysis of contingency versus steady state lanes



### Limitations:

1. Proprietary nature of commercial carrier shipment data
2. Generalizability beyond case study unknown
3. Incomplete on-time performance data for sample period



Sponsor:  
AMC/A4TC

## **Vita**

Major Hervas enlisted in the United States Air Force in 1992 shortly after graduating from Ellison High School in Killeen, Texas. He served six and half years as an Aircraft Armament System Specialist before receiving a Reserve Officers' Training Corps (ROTC) scholarship. Major Hervas separated from active duty in 1998 to complete a 2-year ROTC program and earned his commission upon graduation from the University of Texas at San Antonio with a Bachelor of Arts degree in History in June 2000.

A career logistician, he has amassed vast and varied in-garrison and deployed logistics experience, garnering recognition at the wing and Air Force levels. Major Hervas honed his logistics skills during his most recent operational assignment as the Operations Officer for the 39th Logistics Readiness Squadron, Incirlik Air Base, Turkey. In this position, he led 290 personnel from 10 diverse career fields, providing agile combat support to NATO, the Turkish Air Force, AMC, and the 39th Air Base Wing.

In May 2011, Major Daniel Hervas entered the Graduate School of Engineering and Management, Air Force Institute of Technology (AFIT), Wright-Patterson Air Force Base, Ohio. While assigned to AFIT, he completed the rigorous Intermediate Developmental Education (IDE) logistics program and is poised to earn a Master of Sciences in Logistics. Upon graduation, he will take command of the 92nd Logistics Readiness Squadron, Fairchild Air Force Base, Washington.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 074-0188	
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<p><b>14. ABSTRACT</b></p> <p>Commercial carriers have become a mission essential component of the Defense Transportation System (DTS). In order to improve DTS performance and better support warfighters, the Department of Defense has continually explored methods to enhance services obtained from commercial carriers. Worldwide Express (WWX) is one such initiative. United States Transportation Command (TRANSCOM) implemented WWX in an effort to focus on core competencies, maximize a shrinking organic airlift fleet and capitalize on commercial industry efficiencies. Successful contract implementation and contract evolution has enabled TRANSCOM to meet the demanding post 9-11 surge requirements with limited organic assets.</p> <p>Nonetheless, even successful programs have room for improvement. The intent of this research is to determine the potential cost savings of exploiting existing consolidation and service failure claims provisions contained within the WWX contract. Using seven months of DLA Distribution Susquehanna, PA (DDSP) WWX shipments to Afghanistan as a case study, this research project examined if DDSP could significantly reduce transportation expenditures by maximizing consolidation and service failure reimbursement claims. The data indicates that TRANSCOM has left significant money on the table and better leveraging these provisions could easily reduce transportation costs with little or no investment.</p>					
<p><b>15. SUBJECT TERMS</b></p> <p>Worldwide Express, Cargo Consolidation, Service Failure Claims, Contract Provisions, Cost Savings</p>					
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